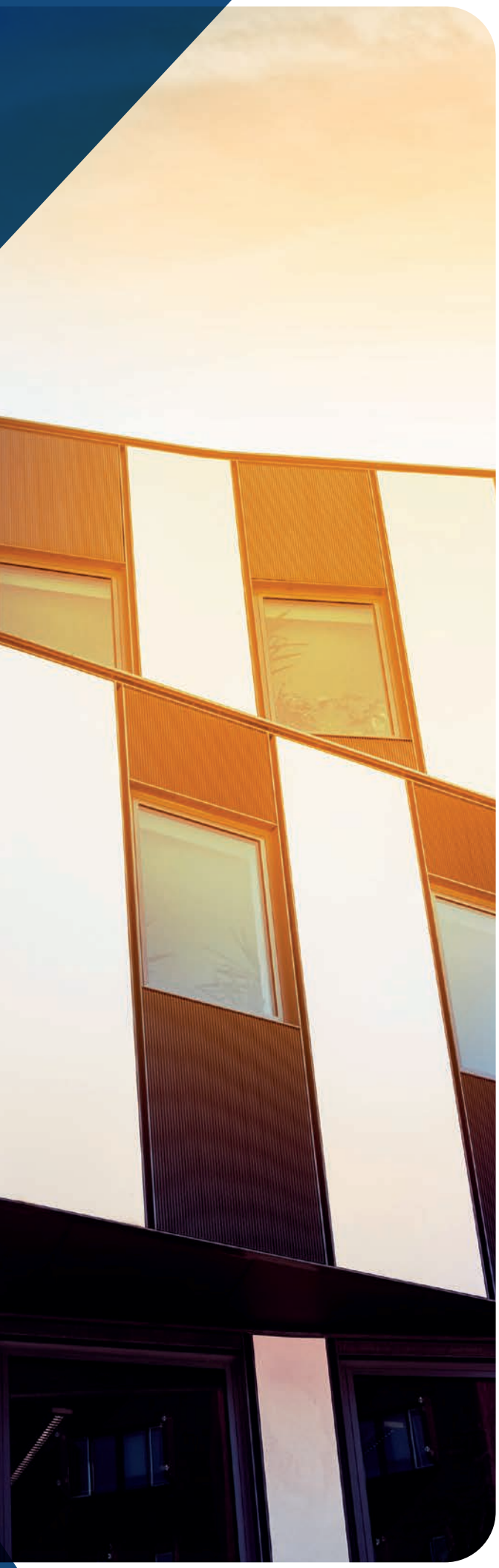
PROJECT VRF R410A FULL DC INVERTER



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.

XRV MULTI SYSTEM
DESIGN AND SAVINGS

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 RANGE

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 UNIT IN HEAT PUMP

XRV PLUS MINI

XRV INDIVIDUAL

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.

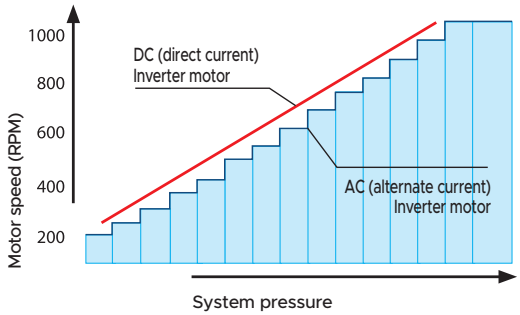
The result is an efficient system that is highly reliable and durable.

MOTORE VENTILATORE DC

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 MULTI SYSTEM
Outdoor heat pump units

XRV PLUS MINI SINGLE PHASE

2.5HP
HCNU 806 XRV

3.2HP
HCNU 1056 XRV

4.5HP
HCNU 1206 XRV

5HP
HCNU 1406 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

XRV INDIVIDUAL THREE-PHASE

14HP
HCYUM 4006 XRV-I

16HP
HCYUM 4506 XRV-I

18HP
HCYUM 5006 XRV-I

20HP
HCYUM 5606 XRV-I

22HP
HCYUM 6156 XRV-I

24HP
HCYUM 6706 XRV-I

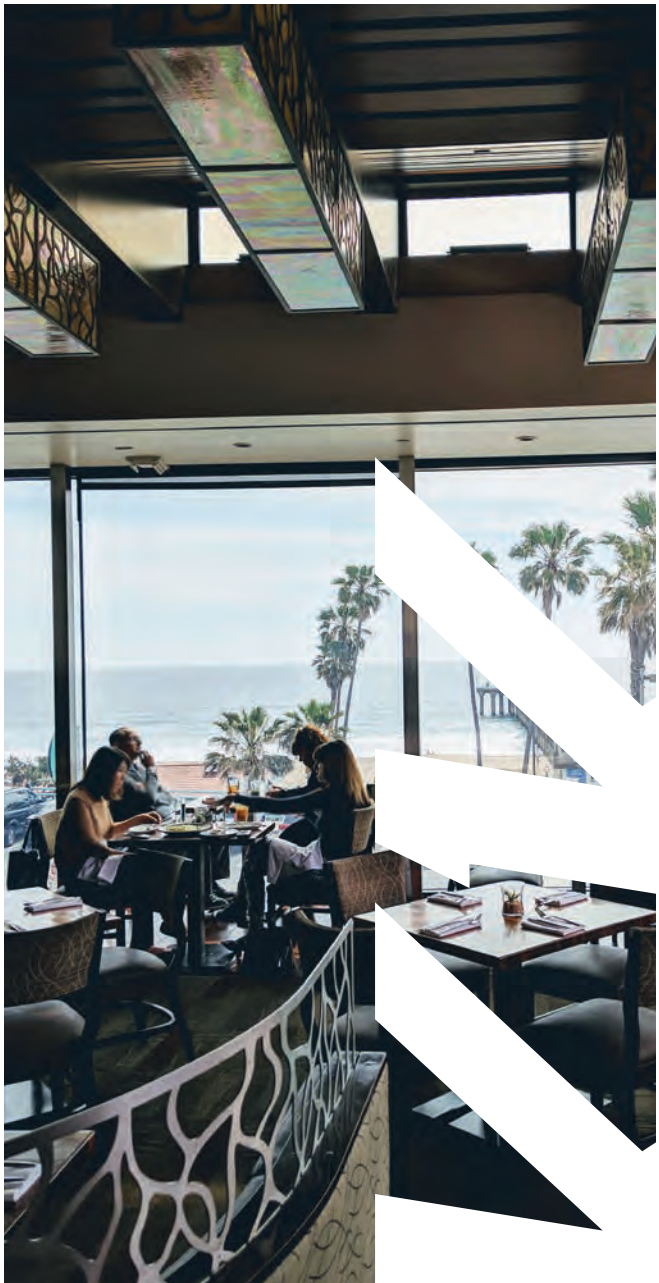
26HP
HCYUM 7306 XRV-I

28HP
HCYUM 7856 XRV-I

30HP
HCYUM 8506 XRV-I

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

XRV PLUS MINI



XRV PLUS MINI
Heat pump

HCNU 806 XRV

HCNU 1056 XRV
HCNU 1206 XRV

HCNU 1406 XRV
HCNU 1606 XRV

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**

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.

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
Rated absorbed power		kW	2.18	2.64	4.32	4.56	5.35
Energy efficiency coefficient (rated)		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
Rated absorbed power		kW	1.82	2.12	3.17	4.08	5.71
Energy performance coefficient (rated)		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							
Refrigerant[3]		Type (GWP)	R410A (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)
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")	9.53 (3/8")
	Gas	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 power level	max	dB(A)	65	68	70	71	71
Sound pressure level at 1 m	max	dB(A)	54	54	56	56	56
Treated air volume	max	m3/h	3700	5200	5000	5400	5200
Operating limits (outside temperature)	Cooling	°C	-5~55				
	Heating	°C	-15~27				
Max. connectable I.U. (min - max)		n°	**1 - 4**	**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
Heat pump

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

Splitting and height difference lengths

Model	HCYU 2006 XRV	HCYU 2246 XRV	HCYU 2606 XRV	HCYU 2806 XRV	HCYU 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			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
Energy efficiency coefficient (rated)		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
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[3]		Type (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)
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")		12.7 (1/2")
	Gas	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 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 limits (outside temperature)	Cooling	°C	-5~48				
	Heating	°C	-20~24				
Max. connectable I.U. (min - max)		n°	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 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 INDIVIDUAL

XRV INDIVIDUAL
Heat pump

HCYUM 4006 XRV-I
HCYUM 4506 XRV-I
HCYUM 5006 XRV-I
HCYUM 5606 XRV-I
HCYUM 6156 XRV-I

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**

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 85 kW for simplified installation without the need for modular units.

Elegant, compact design.

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[3]		Type (GWP)	R 410A (2088)				
Quantity refrigerant 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)
Compressor		no. / type	1 / Scroll DC Inverter			2 / Scroll DC Inverter	
Diameter refrigerant pipes	Liquid	mm (inch)	15.9 (5/8")		19.1 (3/4")		
	Gas	mm (inch)	31.8 (1"1/4)				
Product Specifications							
Dimensions	LxHxD	mm	1340x1635x850			1340x1635x825	
Net weight		Kg	277	277	295	344	344
Sound power level	max	dB(A)	85	88		88	
Sound pressure level at 1 m	max	dB(A)	62	65		66	
Treated air volume	max	m3/h	13000	13000	13000	17000	17000
Operating limits (outside temperature)	Cooling	°C	-5~48				
	Heating	°C	-25~24				
Max. connectable I.U. (min - max)		n°	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. 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 INDIVIDUAL
Heat pump

HCYUM 6706 XRV-I HCYUM 7856 XRV-I
HCYUM 7306 XRV-I HCYUM 8506 XRV-I

Splitting and height difference lengths

Model	HCYUM 6706 XRV-I	HCYUM 7306 XRV-I	HCYUM 7856 XRV-I	HCYUM 8506 XRV-I
Maximum distance between O.U. and the farthest I.U.	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
Maximum height difference between O.U. (up high) and I.U.	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
Maximum height difference between I.U.	30 m	30 m	30 m	30 m
Maximum length of the pipes	**1000 m**	**1000 m**	**1000 m**	**1000 m**

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 85 kW for simplified installation without the need for modular units.

Elegant, compact design.

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 50.

Model			HCYUM 6706 XRV-I	HCYUM 7306 XRV-I	HCYUM 7856 XRV-I	HCYUM 8506 XRV-I
Power		HP	24	26	28	30
Rated capacity[1]	Cooling	kW	67.00	73.00	78.50	85.00
Rated absorbed power		kW	21.60	21.60	24.90	28.30
Energy efficiency coefficient (rated)		EER	3.10	3.40	3.15	3.00
Rated capacity[2]	Heating	kW	67.00	73.00	78.50	85.00
Rated absorbed power		kW	16.80	18.10	21.80	24.30
Energy performance coefficient (rated)		COP	4.00	4.05	3.60	3.50
Electrical data						
Power supply		Ph-V-Hz	3-380~415V50Hz			
Maximum current		A	54.50	52.90	58.70	64.90
Refrigerant circuit/features						
Refrigerant[3]		Type (GWP)	R 410A (2088)			
Quantity refrigerant pre-load (tons of CO2 equivalent)		Kg	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)	11.8 (24.638)
Compressor		no. / type	2 / Scroll DC Inverter			
Diameter refrigerant pipes	Liquid	mm (inch)	19.1 (3/4")	22.2 (7/8")		
	Gas	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
Sound power level	max	dB(A)	89	90		
Sound pressure level at 1 m	max	dB(A)	67	68		
Treated air volume	max	m3/h	25000	25000	25000	24000
Operating limits (outside temperature)	Cooling	°C	-5~48			
	Heating	°C	-25~24			
Max. connectable I.U. (min - max)		n°	39	43	46	50
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.

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	●	●	●	●	●								

ENTHALPY HEAT RECOVERY UNIT

	300	400			
	●	●			
	500	800	1000	1500	2000
	●	●	●	●	●

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

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						
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	
Refrigerant connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")			
	Condensate drain	mm	32			
Accessories						
Decorative panel			TFP 155 XRV-P			
Dimensions	LxHxD	mm	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

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

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							
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	m3/h	1029~704	1200~748	1596~1034		1727~1224
Refrigerant connections	Liquid/Gas	mm (inch)	9.52 (3/8") / 15.9 (5/8")				
	Condensate drain	mm	32				
Accessories							
Decorative panel			TBP 712 IHXR				
Dimensions	LxHxD	mm	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.

HUCU XRV-P

Ducted with medium static pressure

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
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			
Electrical absorption		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
Treated air volume[1]	Max~Min	m³/h	520~300		580~370	800~400
Fan static pressure	Std/Max	Pa	10/50			
Refrigerant connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")			
	Condensate drain	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	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	
Refrigerant connections	Liquid/Gas	mm (inch)	9.52 (3/8") / 15.9 (5/8")			
	Condensate drain	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.

HVDU XRV-P

Ducted with high static pressure

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 systems AIRZONE

The control must be purchased as an accessory

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	mm	965x423x690			1322x423x691		1454x515x931	
Net weight		Kg	41	51	51	68	68	130	
Sound power level[1]	Max~Min	dB(A)	64~60	68~63	68~63	71~66	72~68	75~68	
Sound pressure level at 1.4 m[1]	Max~Min	dB(A)	46~42	50~45	50~45	53~48	54~50	57~50	
Treated air volume[1]	Max~Min	m3/h	1360~1160	1420~1140	1870~1350	2240~1600	2660~1880	4330~3730	
Fan static pressure	Std/Max	Pa	100/200					170/250	
Refrigerant connections	Liquid/Gas	mm (inch)	9.52 (3/8") / 15.9 (5/8")					12.7 (1/2") / 22.2 (7/8")	
	Condensate drain	mm	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

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

The control must be purchased as an accessory

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	mm	1322x423x691	
Net weight		Kg	68	
Sound power level[3]	Max~Min	dB(A)	66~60	
Sound pressure level at 1.4 m[3]	Max~Min	dB(A)	48~42	
Treated air volume[3]	Max~Min	m3/h	2000~1500	
Fan static pressure	Std/Max	Pa	180/200	
Refrigerant connections	Liquid/Gas	mm (inch)	9.52 (3/8") / 15.9 (5/8")	
	Condensate drain	mm	25	
Application area (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.

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			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	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	m³/h	422~356	417~316	656~488	594~424	747~547	1195~809	1421~867
Refrigerant connections	Liquid/Gas	mm (inch)	6.35 (1/4") / 12.7 (1/2")				9.52 (3/8") / 15.9 (5/8")		
	Condensate drain	mm	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.

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						
Electrical absorption		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	m³/h	550~420	930~720			1280~1050	1890~1580	
Refrigerant 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 drain	mm	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.

HFCU XRV-P
Recessed floor

29 dB(A) (2.20~2.80 kW) extremely quiet
Air intake from bottom

200 mm | Maximum compactness for flush-mounted installation

The control must be purchased as an accessory

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 power level[1]	Max~Min	dB(A)	-	-	-	-	-
Sound pressure level at 1.4 m[1]	Max~Min	dB(A)	36~29	36~29	37~30	37~30	41~31
Treated air volume[1]	Max~Min	m³/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	mm (inch)	6.35 (1/4") / 12.7 (1/2")				
	Condensate drain	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				

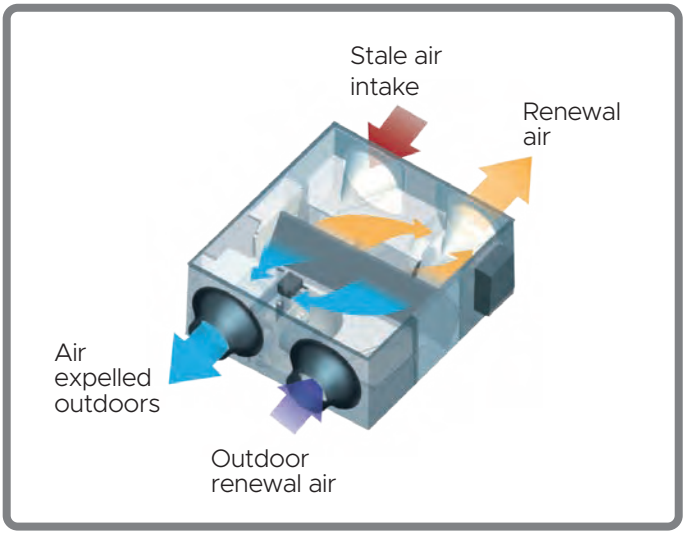
1. Values related to Max and Min speed of 7 levels settable by remote control.

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
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		m³/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	ø346x326	ø346x326
Ducting flange			Not required					Necessary	
Field of application (max UR 80%)		°C	-7~43						
Field of application			IPX2						
Accessories									
Wired remote control (not included)			DHW EH						
Optional parts									
Group control			DHWT-16-XRV-P						
Centralized control			DHC-8-64-XRV-P / DHC-48-384-XRV-P						

Reference legislation: EU Ecodesign Directive 1253/2014 for non-residential ventilation units (NRVU) and residential ventilation (RVU).
1. Values related to the high speed of the 3 levels settable by wired remote control.

EEV KIT

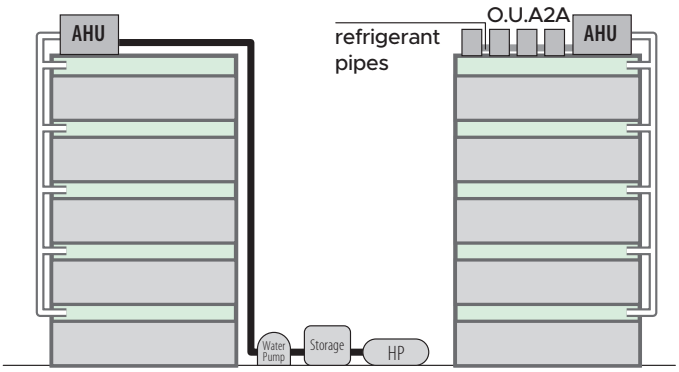
Kit for connecting AHU with direct expansion coil to Hokkaido XRV systems.

HAHU 2-9 XRV-R
HAHU 9-20 XRV-R

HAHU 20-36 XRV-R
HAHU 36-56 XRV-R

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 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

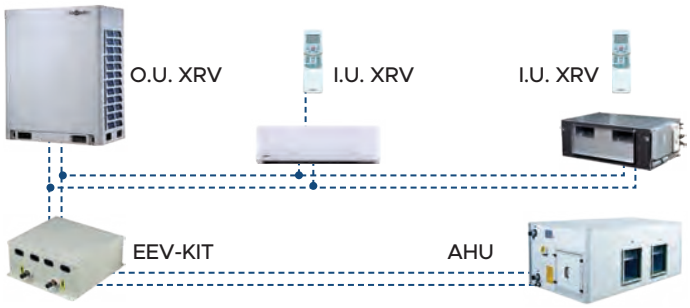
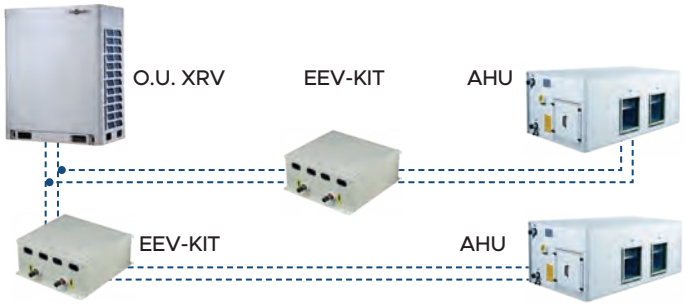


Diagram type B: AHU only



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.

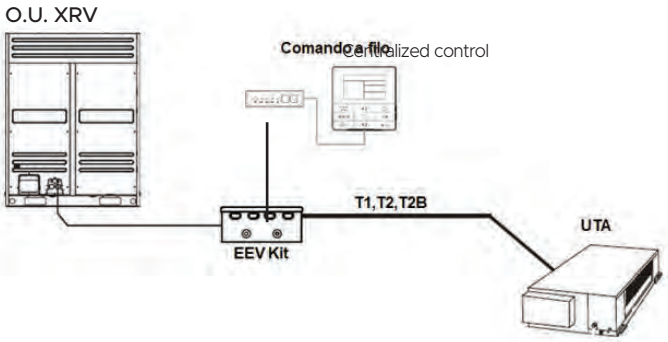
- Failure feedback function: error codes can be shown on the display when malfunctions occur.
  It is also possible to verify the set temperature.
- Maximum number of EEV-Kit that can be connected to an AHU: 4 (maximum reachable capacity 224 kW).
- Maximum distance between EEV Kits and AHU: 8 m.
  Kit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

EEV KIT

Technical data

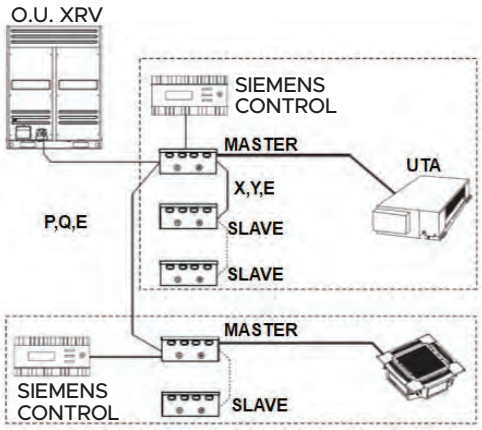
Model			HAHU 2-9 XRV-R	HAHU 9-20 XRV-R	HAHU 20-36 XRV-R	HAHU 36-56 XRV-R
Rated capacity		kW	2.20~9.00	9.00~20.00	20.00~36.00	36.00~56.00
Power supply		Ph-V-Hz	1-220~240V-50Hz			
Dimensions	LxHxD	mm	344x393x125			
Net weight		Kg	5.7	5.7	5.8	6
In/out refrigerant connections		mm (inch)	9.53 (3/8")	9.53 (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 Ts, it is possible to start or stop the outdoor unit, calculate the required thermal load and manage the refrigerant flow through the electronic expansion valve.

Master-slave connection logic



KEY:
MASTER: EEV KIT Master
SLAVE: EEV KIT Slave
P, Q, E: signal between EEV KIT Master - Outdoor unit XRV
X, Y, E: signal between EEV KIT Master - EEV KIT Slave

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.

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
	2.5	Between 7.10 and 8.00 kW
	3	Between 8.00 and 9.00 kW
HAHU 9-20 XRV-R	3.2	Between 9.00 and 11.20 kW
	4	Between 11.20 and 14.00 kW
	5	Between 14.00 and 18.00 kW
	6	Between 18.00 and 20.00 kW
HAHU 20-36 XRV-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

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.