



# PROJECT VRF R410A



HOKKAIDO



## PROJECT VRF R410A

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

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

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## PROJECT VRF R410A

Line up outdoor units	56
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# PROJECT VRF R410A

## XRV MULTI SYSTEM Outdoor heat pump units - 2 pipes



### XRV P MODULAR



8~12HP



14~22HP

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

### COMBINATION

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

# PROJECT VRF R410A

## XRV MULTI SYSTEM

Outdoor heat pump units - 2 pipes

### XRV K MODULAR



8~10HP



12~18HP

8HP	10HP		
HCSU 2524 XRV-K	HCSU 2804 XRV-K		
12HP	14HP	16HP	18HP
HCSU 3354 XRV-K	HCSU 4004 XRV-K	HCSU 4504 XRV-K	HCSU 5004 XRV-K

COMBINATION				
20HP	22HP	24HP	26HP	28HP
10 + 10	10 + 12	10 + 14	10 + 16	10 + 18
HCSU 2804 XRV-K HCSU 2804 XRV-K	HCSU 2804 XRV-K HCSU 3354 XRV-K	HCSU 2804 XRV-K HCSU 4004 XRV-K	HCSU 2804 XRV-K HCSU 4504 XRV-K	HCSU 2804 XRV-K HCSU 5004 XRV-K
30HP	32HP	34HP	36HP	38HP
14 + 16	14 + 18	16 + 18	18 + 18	10 + 10 + 18
HCSU 4004 XRV-K HCSU 4504 XRV-K	HCSU 4004 XRV-K HCSU 5004 XRV-K	HCSU 4504 XRV-K HCSU 5004 XRV-K	HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 2804 XRV-K HCSU 2804 XRV-K HCSU 5004 XRV-K
40HP	42HP	44HP	46HP	48HP
10 + 14 + 16	10 + 16 + 16	10 + 16 + 18	10 + 18 + 18	14 + 16 + 18
HCSU 2804 XRV-K HCSU 4004 XRV-K HCSU 4504 XRV-K	HCSU 2804 XRV-K HCSU 4504 XRV-K HCSU 4504 XRV-K	HCSU 2804 XRV-K HCSU 4504 XRV-K HCSU 5004 XRV-K	HCSU 2804 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 4004 XRV-K HCSU 4504 XRV-K HCSU 5004 XRV-K
50HP	52HP	54HP	56HP	58HP
14 + 18 + 18	16 + 18 + 18	18 + 18 + 18	10 + 10 + 18 + 18	10 + 14 + 16 + 18
HCSU 4004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 4504 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 5004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 2804 XRV-K HCSU 2804 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 2804 XRV-K HCSU 4004 XRV-K HCSU 4504 XRV-K HCSU 5004 XRV-K
60HP	62HP	64HP	66HP	68HP
10 + 14 + 18 + 18	10 + 16 + 18 + 18	10 + 18 + 18 + 18	14 + 16 + 18 + 18	14 + 18 + 18 + 18
HCSU 2804 XRV-K HCSU 4004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 2804 XRV-K HCSU 4504 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 2804 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 4004 XRV-K HCSU 4504 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 4004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K
70HP	72HP			
16 + 18 + 18 + 18	18 + 18 + 18 + 18			
HCSU 4504 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K	HCSU 5004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K HCSU 5004 XRV-K			

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

Outdoor heat recovery units - 3 pipes

### XRV PLUS HEAT RECOVERY



8~16HP

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

### COMBINATION

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

### FLOW DIVIDERS

Flow dividers for heat recovery function.

Compact, lightweight design. Up to 24 indoor units on the same divider.

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

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

Outdoor heat pump units

### XRV PLUS MINI



2.5HP	3.2HP
single phase	single phase
HCU 804 XRV-1 Plus	HCU 1054 XRV-1 Plus



5HP	5.5HP	6.2HP
three-phase	three-phase	three-phase
HCSU 1404 XRV-1 Plus	HCSU 1604 XRV-1 Plus	HCSU 1804 XRV-1 Plus



7HP	8HP	9HP
three-phase	three-phase	three-phase
HCYU 2004 XRV-1 Plus	HCYU 2244 XRV-1 Plus	HCYU 2604 XRV-1 Plus



14HP	16HP
three-phase	three-phase
HCYU 4004 XRV-1 Plus	HCYU 4504 XRV-1 Plus

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

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER



XRV P MODULAR



XRV K MODULAR



XRV PLUS HEAT RECOVERY



XRV PLUS MINI



### FULL DC INVERTER TECHNOLOGY FOR THE "P Modular", "Plus Heat Recovery, "Plus Mini" OUTDOOR UNIT RANGES

Full DC Inverter technology has always characterised Hokkaido's proposal in the market of VRF systems, in heat pump and in heat recovery. These ranges are all equipped with a DC Inverter compressor and DC Inverter fan motor. outstanding results in terms of energy efficiency, reducing operation costs as well as CO<sub>2</sub> emissions.

This year, Hokkaido also introduced XRV K MODULAR 2-pipe units into the range, thus improving the whole range of Systems to the highest technological standards.

### HERE'S WHAT MAKES THE HOKKAIDO PROPOSAL "FULL"

#### Energy savings and comfort

Full DC Inverter technology (DC Inverter compressor and DC Inverter fan motor) applied to the XRV system outdoor units ensures high EER and COP values not only at full load, but also at partial load. In this way, energy savings and high comfort are guaranteed in a wide outdoor temperature operation range, which has the following average values: cooling from -5°C to +48°C, heating from -20°C to +24°C, mixed cooling/heating from -5°C to +24°C.

#### High efficiency DC Inverter compressor

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

- Low inrush current
- Rapid system start-up
- Quick response to changes in cooling or heating demand by users
- Reduced on/off cycles

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

#### DC fan motor

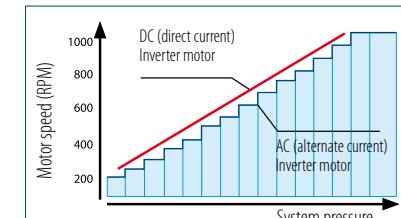
The use of the **DC Inverter fan motor** ensures energy savings during partial loads, as it adjusts the fan speed and helps make the unit more silent. The fan and outlet grille design guarantees increased air flow, thus creating a low noise level.



DC Inverter compressor



DC Inverter fan motor



# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### XRV P MODULAR

Heat pump - 2 pipes

NEW



**FULL DC INVERTER**

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



**FULL DC INVERTER**

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

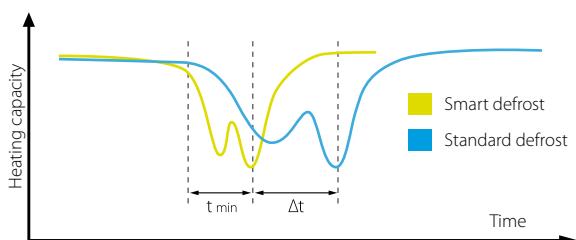
The range is characterised by 8 basic modules: 8, 10, 12, 14, 16, 18, 20 and 22HP. Wide range of available power: from 25.2 to 246.0 kW. All units are equipped with a DC Inverter compressor and with DC Inverter fan motor:

- Wider fan speed adjustment range
- Reduced noise level

Fan design with the sharp-edged blade reduces airflow resistance. Silent operation, auto-addressing of indoor units.

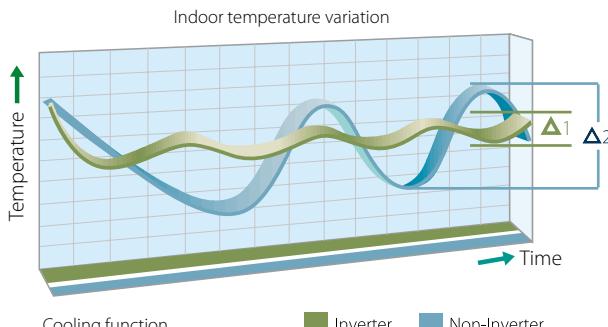
### Smart defrost technology

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

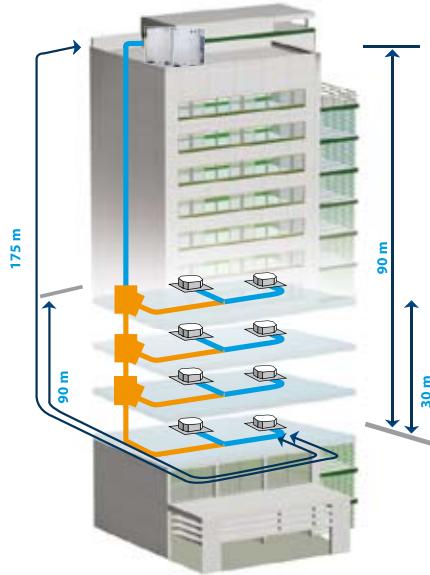


### Fast cooling and heating

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



### SPLITTING LENGTHS AND HEIGHT DIFFERENCES



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

Total length of system piping: 1000 m

Maximum distance between OU and the farthest IU = 175 m (equivalent 200 m)

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

Maximum height difference between OU (up high) and IU = 90 m

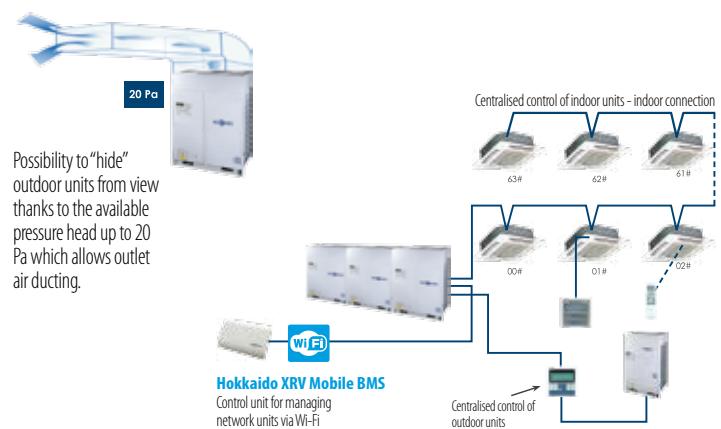
Maximum height difference between OU (down low) and IU = 110 m

Maximum height difference between IU = 30 m

### INSTALLATION AND OPERATION

- Wide range of external operating temperatures: heating - 20°C / 24°C, cool. - 5°C / 43°C
- COP values up to 5.09 (mod. 8HP)
- EER values up to 4.03 (mod. 8HP)

### NETWORK WIRING DIAGRAM



# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

NEW



### XRV P MODULAR

Heat pump - 2 pipes

Model / Combination		HCSU 2525 XRV-P	HCSU 2805 XRV-P	HCSU 3355 XRV-P	HCSU 4005 XRV-P	HCSU 4505 XRV-P	HCSU 5005 XRV-P	HCSU 5605 XRV-P
Power	HP	8	10	12	14	16	18	20
Rated cooling capacity (1)	kW	25.2	28.0	33.5	40.0	45.0	50.0	56.0
Rated heating capacity (2)	kW	27.0	31.5	37.5	40.0	45.0	50.0	56.0
Electrical data								
Power supply	Volt/Hz/Ph	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3
Electric consumption in cooling mode (fully operational)	kW	6.25	7.49	8.91	11.66	13.64	14.71	16.47
Electric consumption in heating mode (fully operational)	kW	5.30	6.89	8.91	9.83	11.69	12.50	14.00
EER performance coefficient in cooling mode	w/w	4.03	3.74	3.76	3.43	3.30	3.40	3.40
COP performance coefficient in heating mode	w/w	5.09	4.57	4.21	4.07	3.85	4.00	4.00
Refrigerant circuit/features								
Refrigerant	type	R 410A						
DC Inverter compressor	no. / type	1/Scroll DC Inverter	1/Scroll DC Inverter	1/Scroll DC Inverter	2/Scroll DC Inverter	2/Scroll DC Inverter	2/Scroll DC Inverter	2/Scroll DC Inverter
Fan air flow	max	m <sup>3</sup> /h	12000	12000	12000	14000	14000	16000
Sound pressure level at 1 m	max	dB(A)	59	63	62	66	66	66
Sound power level	max	dB(A)	79	83	82	88	88	88
Refrigerant connections (3)	Liquid	Ø mm (inch)	12.7 (1/2")	12.7 (1/2")	12.7 (1/2")	15.9 (5/8")	15.9 (5/8")	15.9 (5/8")
	Gas	Ø mm (inch)	25.4 (1")	25.4 (1")	25.4 (1")	31.8 (1"1/4")	31.8 (1"1/4")	31.8 (1"1/4")
	Parallel oil	Ø mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m	1000	1000	1000	1000	1000	1000	1000
Max height difference between indoor units	m	30	30	30	30	30	30	30
Max height difference between outdoor and indoor units	m	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110
Operating temp. range in cooling mode	°C / DB	-5°C / 43°C						
Operating temp. range in heating mode	°C / WB	-20°C / 24°C						
Connectable indoor units	no.	13	16	20	23	26	29	33
Capacity of connected indoor unit	%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130
Dimensions and weight								
Dimensions (LxHxD) (4)	mm	990x1635x790	990x1635x790	990x1635x790	1340x1635x790	1340x1635x790	1340x1635x790	1340x1635x790
Net weight	Kg	219	219	237	297	297	305	340

Model / Combination		HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 3355 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 4505 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 5605 XRV-P HCSU 6155 XRV-P	HCSU 2805 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 3355 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P
Power	HP	44 (22+22)	46 (12+12+22)	48 (10+16+22)	50 (10+18+22)	52 (10+20+22)	54 (10+22+22)	56 (12+22+22)
Rated cooling capacity (1)	kW	123.0	128.5	134.5	139.5	145.5	151.0	156.5
Rated heating capacity (2)	kW	123.0	136.5	138.0	143.0	149.0	154.5	160.5
Electrical data								
Power supply	Volt/Hz/Ph	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3
Electric consumption in cooling mode (fully operational)	kW	39.68	37.66	40.97	42.04	43.8	47.17	48.59
Electric consumption in heating mode (fully operational)	kW	32.36	34.00	34.76	35.57	37.07	39.25	41.27
EER performance coefficient in cooling mode	w/w	3.10	3.41	3.28	3.32	3.32	3.20	3.22
COP performance coefficient in heating mode	w/w	3.80	4.01	3.97	4.02	4.02	3.94	3.89
Refrigerant circuit/features								
Refrigerant	type	R 410A	R 410A	R 410A	R 410A	R 410A	R 410A	R 410A
DC Inverter compressor	no. / type	4/Scroll DC Inverter	4/Scroll DC Inverter	5/Scroll DC Inverter				
Fan air flow	max	m <sup>3</sup> /h	32000	40000	42000	44000	44000	44000
Sound pressure level at 1 m	max	dB(A)	69	69	70	70	70	70
Sound power level	max	dB(A)	91	90	92	92	92	92
Refrigerant connections (3)	Liquid	Ø mm (inch)	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	19.1 (3/4")	22.2 (7/8")	22.2 (7/8")
	Gas	Ø mm (inch)	31.8 (1"1/4")	31.8 (1"1/4")	31.8 (1"1/4")	31.8 (1"1/4")	41.3 (1"5/8")	41.3 (1"5/8")
	Parallel oil	Ø mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m	1000	1000	1000	1000	1000	1000	1000
Max height difference between indoor units	m	30	30	30	30	30	30	30
Max height difference between outdoor and indoor units	m	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110	90 - 110
Operating temp. range in cooling mode	°C / DB	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C
Operating temp. range in heating mode	°C / WB	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C
Connectable indoor units	no.	64	64	64	64	64	64	64
Capacity of connected indoor unit	%	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130
Dimensions and weight								
Dimensions (LxHxD) (4)	mm	2780x1635x790	3520x1635x790	3870x1635x790	3870x1635x790	3870x1635x790	3870x1635x790	3870x1635x790
Net weight	Kg	680	814	856	864	899	899	917

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

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

(3) 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.

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



# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

NEW



### XRV P MODULAR

Heat pump - 2 pipes

Model / Combination	HCSU 5005 XRV-P HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 4505 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 5005 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 5605 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P	HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P HCSU 6155 XRV-P
<b>Power</b>	<b>HP</b>	<b>80 (18+18+22+22)</b>	<b>82 (16+22+22+22)</b>	<b>84 (18+22+22+22)</b>	<b>86 (20+22+22+22)</b>
Rated cooling capacity (1)	kW	223.0	229.5	234.5	240.5
Rated heating capacity (2)	kW	223.0	229.5	234.5	240.5
<b>Electrical data</b>					
Power supply	Volt/Hz/Ph	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3
Electric consumption in cooling mode (fully operational)	kW	69.10	73.16	74.23	75.99
Electric consumption in heating mode (fully operational)	kW	57.36	60.23	61.04	62.54
EER performance coefficient in cooling mode	w/w	3.23	3.14	3.16	3.10
COP performance coefficient in heating mode	w/w	3.89	3.81	3.84	3.80
<b>Refrigerant circuit/features</b>					
Refrigerant	type	R 410A	R 410A	R 410A	R 410A
DC Inverter compressor	no. / type	8/Scroll DC Inverter	8/Scroll DC Inverter	8/Scroll DC Inverter	8/Scroll DC Inverter
Fan air flow	max	m³/h	64000	62000	64000
Sound pressure level at 1 m	max	dB(A)	72	72	72
Sound power level	max	dB(A)	94	94	94
Refrigerant connections (3)	Liquid	Ø mm (inch)	25.4 (1")	25.4 (1")	25.4 (1")
	Gas	Ø mm (inch)	44.5 (1"3/4")	44.5 (1"3/4")	44.5 (1"3/4")
	Parallel oil	Ø mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m	1000	1000	1000	1000
Max height difference between indoor units	m	30	30	30	30
Max height difference between outdoor and indoor units	m	90 - 110	90 - 110	90 - 110	90 - 110
Operating temp. range in cooling mode	°C / DB	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C	-5°C / 43°C
Operating temp. range in heating mode	°C / WB	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C	-20°C / 24°C
<b>Connectable indoor units</b>	no.	64	64	64	64
Capacity of connected indoor unit	%	50 - 130	50 - 130	50 - 130	50 - 130
<b>Dimensions and weight</b>					
Dimensions (LxHxD) (4)	mm	5660x1635x790	5660x1635x790	5660x1635x790	5660x1635x790
Net weight	Kg	1290	1317	1325	1360

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

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

(3) 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.

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

# PROJECT VRF R410A



## XRV MULTI SYSTEM

### XRV K MODULAR

Heat pump - 2 pipes



#### FULL DC INVERTER

HCSU 2524 XRV-K  
HCSU 2804 XRV-K

#### DC INVERTER + ON/OFF

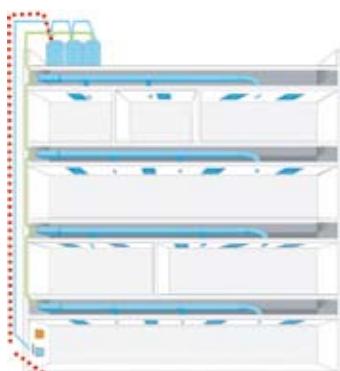
HCSU 3354 XRV-K  
HCSU 4004 XRV-K  
HCSU 4504 XRV-K  
HCSU 5004 XRV-K

The range is characterised by 6 basic modules: 8, 10, 12, 14, 16 and 18HP. 8 and 10HP units are equipped with a DC Inverter compressor; 12, 14, 16, 18HP units are equipped of DC Inverter compressor and on/off compressor.

All units are equipped with a DC Inverter fan motor:

- Wider fan speed adjustment range
- Reduced noise level

Silent operation, auto-addressing of indoor units.



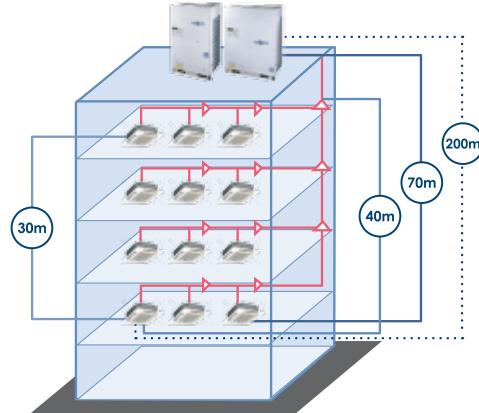
#### Centralized control wiring diagram

- Centralised control of outdoor units
- ● ● Centralised control of indoor units



Possibility to "hide" outdoor units from view thanks to the available pressure head, up to 20 Pa, which allows outlet air ducting.

#### SPLITTING LENGTHS AND HEIGHT DIFFERENCES



Maximum distance between OU and the farthest IU = 200 m

Maximum distance from the first branch pipe to the farthest IU = 40 m (90 m\*)

Maximum height difference between OU (up high) and IU = 70 m

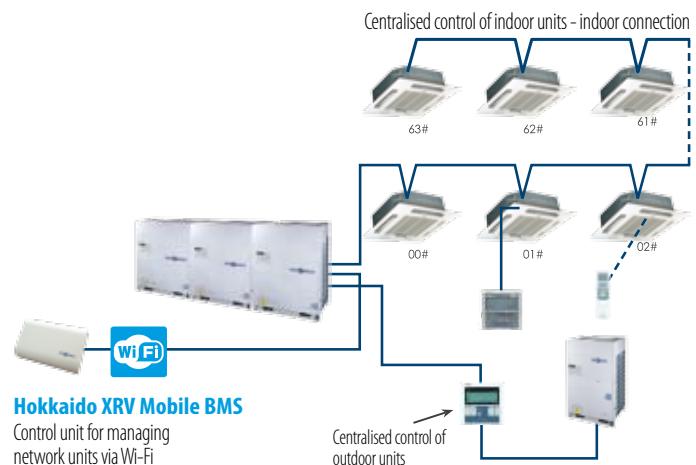
Maximum height difference between OU (down low) and IU = 110 m

Maximum height difference between IU = 30 m

Maximum length of the pipes = 1000 m

\* Upon approval of the technical department.

#### NETWORK WIRING DIAGRAM



# PROJECT VRF R410A

## XRV MULTI SYSTEM

### XRV K MODULAR

Heat pump - 2 pipes

Model / Combination		HCSU 2524 XRV-K	HCSU 2804 XRV-K	HCSU 3354 XRV-K	HCSU 4004 XRV-K	HCSU 4504 XRV-K	HCSU 5004 XRV-K
Power	HP	8	10	12	14	16	18
Rated cooling capacity (1)	kW	25.2	28.0	33.5	40.0	45.0	50.0
Rated heating capacity (2)	kW	27.0	31.5	37.5	45.0	50.0	56.0
<b>Electrical data</b>							
Power supply	Volt/Hz/Ph	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3
Electric consumption in cooling mode (fully operational)	kW	5.87	7.19	9.05	12.30	14.01	15.19
Electric consumption in heating mode (fully operational)	kW	6.15	7.60	8.99	11.19	12.78	14.25
EER performance coefficient in cooling mode	w/w	4.29	3.89	3.70	3.25	3.21	3.29
COP performance coefficient in heating mode	w/w	4.39	4.14	4.17	4.02	3.91	3.93
<b>Refrigerant circuit/features</b>							
Refrigerant	type	R 410A					
DC Inverter compressor	no. / type	1/Scroll DC Inv. HITACHI					
Scroll compressor	no. / type	0	0	1 / Scroll HITACHI			
Fan air flow	max	m <sup>3</sup> /h	11500	11500	15100	15100	15250
Sound pressure level at 1 m	max	dB(A)	57	57	59	60	61
Sound pressure level at 2.5 m	max	dB(A)	49	49	51	52	53
Refrigerant connections (3)	Liquid	Ø mm (inch)	9.53 (3/8")	9.53 (3/8")	12.7 (1/2")	12.7 (1/2")	15.9 (5/8")
	Gas	Ø mm (inch)	22.2 (7/8")	22.2 (7/8")	25.4 (1")	25.4 (1")	28.6 (9/8")
	Parallel oil	Ø mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m		1000	1000	1000	1000	1000
Max height difference between indoor units	m		30	30	30	30	30
Max height difference between outdoor and indoor units	m		70 - 110	70 - 110	70 - 110	70 - 110	70 - 110
Operating temp. range in cooling mode	°C / DB	-5°C / 43°C					
Operating temp. range in heating mode	°C / WB	-20°C / 24°C					
Connectable indoor units	no.		13	16	20	23	26
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130
<b>Dimensions and weight</b>							
Dimensions (LxHxD) (4)	mm	960x1615x765	960x1615x765	1250x1615x765	1250x1615x765	1250x1615x765	1250x1615x765
Net weight	Kg	200	200	268	280	280	300

Model / Combination		HCSU 2804 XRV-K	HCSU 4004 XRV-K	HCSU 4004 XRV-K				
Power	HP	38	40	42	44	46	48	50
Rated cooling capacity (1)	kW	106.0	113.0	118.0	123.0	128.0	135.0	140.0
Rated heating capacity (2)	kW	119.0	126.5	131.5	137.5	143.5	151.0	157.0
<b>Electrical data</b>								
Power supply	Volt/Hz/Ph	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3	380-415/50/3
Electric consumption in cooling mode (fully operational)	kW	29.59	33.52	35.23	36.41	37.59	41.52	42.7
Electric consumption in heating mode (fully operational)	kW	29.46	31.59	33.18	34.64	36.1	38.23	39.69
EER performance coefficient in cooling mode	w/w	3.58	3.37	3.35	3.38	3.40	3.25	3.28
COP performance coefficient in heating mode	w/w	4.04	4.00	3.96	3.97	3.97	3.95	3.96
<b>Refrigerant circuit/features</b>								
Refrigerant	type	R 410A						
DC Inverter compressor	no. / type	3/Scroll DC Inv. HITACHI						
Scroll compressor	no. / type	1 / Scroll HITACHI	2 / Scroll HITACHI	3 / Scroll HITACHI	3 / Scroll HITACHI			
Fan air flow	max	mc/h	35740	39773	39773	40261	40749	44768
Sound pressure level at 1 m	max	dB(A)	63	65	65	65	65	66
Sound pressure level at 2.5 m	max	dB(A)	55	57	57	57	57	58
Refrigerant connections (3)	Liquid	Ø 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")
	Gas	Ø mm (inch)	38.1 (1" 1/2")	38.1 (1" 1/2")	38.1 (1" 1/2")	38.1 (1" 1/2")	38.1 (1" 1/2")	38.1 (1" 1/2")
	Parallel oil	Ø mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
Max pipe length	m		1000	1000	1000	1000	1000	1000
Max height difference between indoor units	m		30	30	30	30	30	30
Max height difference between outdoor and indoor units	m		70 - 110	70 - 110	70 - 110	70 - 110	70 - 110	70 - 110
Operating temp. range in cooling mode	°C / DB	-5°C / 43°C						
Operating temp. range in heating mode	°C / WB	-20°C / 24°C						
Connectable indoor units	no.		63	64	64	64	64	64
Capacity of connected indoor unit	%		50 - 130	50 - 130	50 - 130	50 - 130	50 - 130	50 - 130
<b>Dimensions and weight</b>								
Dimensions (LxHxD) (4)	mm	3370x1615x765	3660x1615x765	3660x1615x765	3660x1615x765	3660x1615x765	3950x1615x765	3950x1615x765
Net weight	Kg	700	760	760	780	800	860	880

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

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

(3) 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.

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





## XRV MULTI SYSTEM - FULL DC INVERTER

### XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes



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

The range is characterised by 5 basic modules: 8, 10, 12, 14 and 16HP. All outdoor unit compressors are Full DC Inverter type for a high level of efficiency.

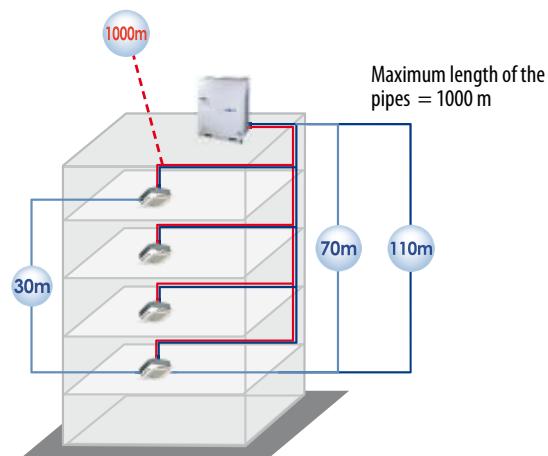
Possibility of connecting up to 24 indoor units with only one flow divider.

The indoor units can operate in different modes even if they are connected to the same flow divider.

Wide range in operating conditions: from -20° C WB in heating mode up to +43° C DB in cooling mode with no stop.

High splitting distance: max distance between I.U. up to 200 m, total length up to 1000 m.

### SPLITTING LENGTHS AND HEIGHT DIFFERENCES

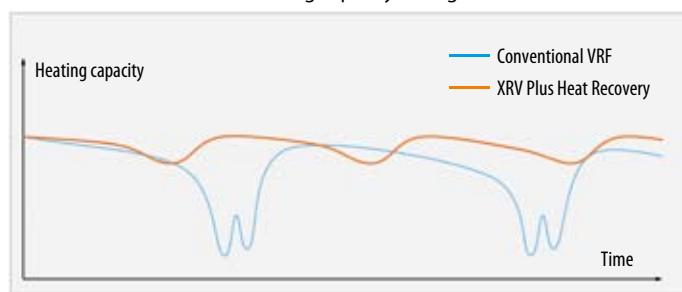


Max distance between OU and the farthest IU = 200 m  
Max distance from the divider to the farthest IU = 40 m  
Max distance from the first branch pipe to the farthest IU = 90 m  
Max height difference between OU (up high) and IU = 70 m  
Max height difference between OU (down low) and IU = 110 m  
Max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

### HEATING DURING DEFROST

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

Curve of heating capacity during defrost



### HIGH ENERGY EFFICIENCY

Fan and grille.



DC Inverter fan, low noise level, low consumption, high efficiency.

Highly efficient heat exchanger.



Integrated electric circuit.



Control of DC Inverter wave at 180°(IPM).



High pressure DC Inverter Scroll compressor contributes to very high efficiency.

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

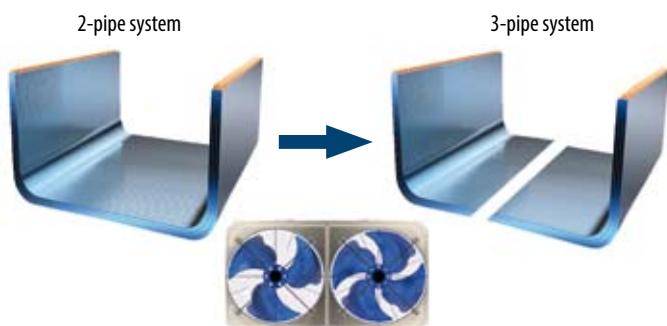
### XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

#### FAN AND GRILLE

Outdoor unit heat exchangers are divided in two parts, a left and right structure, so that there are two independent circuits in one outdoor unit.

Each outdoor unit has two fans, which allow control over each heat exchanger structure individually.



#### BRANCH PIPE KIT

BRANCH PIPES DOWNSTREAMS OF THE FIRST INDOOR UNIT	
Code	A - Capacity of the connectible indoor units (kW)
DIS-22-1RB	$A < 16.6$
DIS-180-1RB	$16.6 \leq A < 33.0$
DIS-371-1RB	$33.0 \leq A < 66.0$
DIS-540-1RH Plus	$66.0 \leq A < 92.4$
DIS-1344-1RH Plus	$92.0 \leq A < 135.0$

BRANCH PIPE KIT FOR OUTDOOR UNIT CONNECTION	
Code	Outdoor units
DOS 2-1RH Plus	2 Outdoor unit KITS
DOS 3-1RH Plus	3 Outdoor unit KITS
DOS 4-1RH Plus	4 Outdoor unit KITS
OH-BAL-KT*	T-shaped fitting for oil parallel pipe

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

#### PRESSURE HEAD UP TO 20 Pa

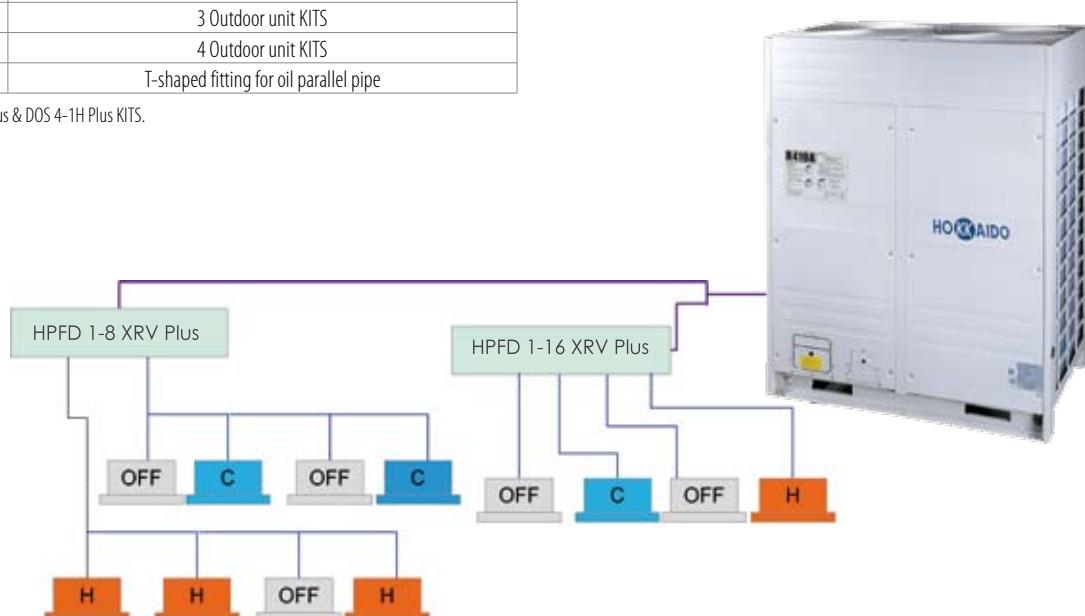
The available pressure head up to 20 Pa allows users to "hide" the outdoor units from view and to duct the outlet air.



#### INDOOR UNIT CONNECTION SYSTEM

Indoor units are connected to flow dividers.

Up to 4 indoor units (max 16 kW) can be connected to each output. The units connected to each output can operate in different modes from those connected to another output. All indoor units connected to one output can only operate in the same mode.



# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

Model / Combination		HCSRU 2524 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 3354 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4504 XRV-1 Plus
Power	HP	8	10	12	14	16
Rated cooling capacity (1)	kW	25.2	28.0	33.5	40.0	45.0
Rated heating capacity (2)	kW	27.0	31.5	37.5	40.0	45.0
Electrical data						
Power supply	Volt/Hz/Ph			380-415/50/3		
Electric consumption in cooling mode (fully operational)	kW / A	5.97	6.75	9.28	11.49	14.20
Electric consumption in heating mode (fully operational)	kW / A	5.02	6.21	9.24	9.76	11.90
EER performance coefficient in cooling mode	w/w	4.22	4.15	3.61	3.48	3.17
COP performance coefficient in heating mode	w/w	5.38	5.07	4.06	4.10	3.78
Refrigerant circuit/features				R 410A		
Refrigerant	type					
DC Inverter compressor	no. / type		1 / Scroll DC Inverter HITACHI		2 / Scroll DC Inverter HITACHI	
Fan air flow	min/max	m³/h	10675 / 12000		12875 / 15000	
Sound pressure level at 1 m	min/max	dB(A)	55/57	56/58	58/60	
Power level	min/max	dB(A)	79	83	84	88
	Liquid	Ø mm (inch)	9.53 (3/8)	12.7 (1/2)		15.9 (5/8)
	Low pressure gas	Ø mm (inch)	22.2 (7/8)	25.4 (1)		28.6 (9/8)
Refrigerant connections (3)	High pressure gas	Ø mm (inch)	19.1 (3/4)			22.2 (7/8)
	High pressure parallel gas	Ø mm (inch)	19.1 (3/4)			19.1 (3/4)
	Parallel oil	Ø mm (inch)	6.35 (1/4)			6.35 (1/4)
Max pipe length	m			1000		
Max height difference between indoor units	m			30		
Max height difference between outdoor and indoor units	m			70 (outdoor unit up high) - 110 (outdoor unit down low)		
Operating temp. range in cooling mode	°C / DB			-5°C / 43°C		
Operating temp. range in heating mode	°C / WB			-20°C / 24°C		
Operating temp. range in mixed cooling/heating mode	°C / WB			-5°C / 24°C		
Connectable indoor units	no.	13	16	20	23	26
Capacity of connected indoor unit	%			50 - 130		
Dimensions and weight						
Dimensions (LxHxD) (4)	mm			1250x1615x765		
Net weight	Kg		255			303

Model / Combination		HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus
Power	HP	34 (10+10+14)	36 (10+10+16)	38 (10+12+16)	40 (10+14+16)	42 (14+14+14)	44 (14+14+16)
Rated cooling capacity (1)	kW	96.0	101.0	106.5	113.0	120.0	125.0
Rated heating capacity (2)	kW	103.0	108.0	114.0	116.5	120.0	125.0
Electrical data				380-415/50/3			
Power supply	Volt/Hz/Ph						
Electric consumption in cooling mode (fully operational)	kW / A	24.99	27.70	30.23	32.44	34.47	37.18
Electric consumption in heating mode (fully operational)	kW / A	22.18	24.32	27.35	27.87	29.28	31.42
EER performance coefficient in cooling mode	w/w	3.84	3.65	3.52	3.48	3.48	3.36
COP performance coefficient in heating mode	w/w	4.64	4.44	4.17	4.18	4.10	3.98
Refrigerant circuit/features				R 410A			
Refrigerant	type						
DC Inverter compressor	no. / type		4 / Scroll DC Inverter HITACHI	5 / Scroll DC inv. HIT.	6 / Scroll DC inverter HITACHI		
Fan air flow	min/max	m³/h	10675 / 39000	10675 / 40000	10675 / 42000	12875 / 45000	
Sound pressure level at 1 m	min/max	dB(A)	55/65		55/66	56/67	
Power level	min/max	dB(A)	47/57		47/58	48/59	
	Liquid	Ø mm (inch)		19.1 (3/4)			
	Low pressure gas	Ø mm (inch)		41.3 (1 5/8)			
Refrigerant connections (3)	High pressure gas	Ø mm (inch)		34.9 (1 3/8)			
	High pressure parallel gas	Ø mm (inch)		19.1 (3/4)			
	Parallel oil	Ø mm (inch)		6.35 (1/4)			
Max pipe length	m			1000			
Max height difference between indoor units	m			30			
Max height difference between outdoor and indoor units	m			70 (outdoor unit up high) - 110 (outdoor unit down low)			
Operating temp. range in cooling mode	°C / DB			-5°C / 43°C			
Operating temp. range in heating mode	°C / WB			-20°C / 27°C			
Operating temp. range in mixed cooling/heating mode	°C / WB			-5°C / 27°C			
Connectable indoor units	no.	56	59	63	64	64	64
Capacity of connected indoor unit	%			50 - 130			
Dimensions and weight							
Dimensions (LxHxD) (4)	mm			3950x1615x765			
Net weight	Kg		813		861		909

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

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

(3) 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.

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

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### XRV PLUS HEAT RECOVERY

Heat recovery - 3 pipes

HCSRU 2524 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4504 XRV-1 Plus
18 (8+10)	20 (10+10)	22 (10+12)	24 (10+14)	26 (10+16)	28 (14+14)	30 (14+16)	32 (16+16)	
53.2	56.0	61.5	68.0	73.0	80.0	85.0	90.0	
58.5	63.0	69.0	71.5	76.5	80.0	85.0	90.0	
380-415/50/3								
12.72	13.5	16.03	18.24	20.95	22.98	25.69	28.40	
11.23	12.42	15.45	15.97	18.11	19.52	21.66	23.8	
4.18	4.15	3.84	3.73	3.48	3.48	3.31	3.17	
5.21	5.07	4.47	4.48	4.22	4.10	3.92	3.78	
R410A								
2 / Scroll DC Inverter HITACHI			3 / Scroll DC Inverter HITACHI			4 / Scroll DC Inverter HITACHI		
10675 / 24000		10675 / 25000	10675 / 27000		12875 / 30000		12875 / 30000	
55/61		55/62	55/63		56/64		58/64	
47/53		47/54	47/55		48/56		50/56	
15.9 (5/8)		15.9 (5/8)				19.1 (3/4)		
31.8 (1 1/4)					34.9 (1 3/8)			
28.6 (9/8)					28.6 (9/8)			
19.1 (3/4)					19.1 (3/4)			
6.35 (1/4)					6.35 (1/4)			
1000								
30								
70 (outdoor unit up high) - 110 (outdoor unit down low)								
-5°C / 43°C								
-20°C / 24°C								
-5°C / 24°C								
29	33	36	39	43	46	50	53	
50 - 130								
2600x1615x765								
510			558			606		

HCSRU 4004 XRV-1 Plus	HCSRU 4504 XRV-1 Plus	HCSRU 2524 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 2804 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4004 XRV-1 Plus	HCSRU 4504 XRV-1 Plus
46 (14+16+16)	48 (16+16+16)	50 (8+10+16+16)	52 (10+10+16+16)	54 (10+12+16+16)	56 (10+14+16+16)	58 (14+14+16+16)	60 (14+14+16+16)	62 (14+16+16+16)	64 (16+16+16+16)
130.0	135.0	143.2	146.0	151.5	158.0	165.0	170.0	175.0	180.0
130.0	135.0	148.5	153.0	159.0	161.5	165.0	170.0	175.0	180.0
380-415/50/3									
39.89	42.6	41.12	41.9	44.43	46.64	48.67	51.38	54.09	56.8
33.56	35.7	35.03	36.22	39.25	39.77	41.18	43.32	45.46	47.6
3.26	3.17	3.48	3.48	3.41	3.39	3.39	3.31	3.24	3.17
3.87	3.78	4.24	4.22	4.05	4.06	4.01	3.92	3.85	3.78
R410A									
6 / Scroll DC inverter HITACHI					7 / Scroll DC inv. HITA.		8 / Scroll DC inv. HITA.		
12875 / 45000		10675 / 54000		10675 / 55000	10675 / 57000		12875 / 60000		
56/67		56/68		56/68			55/69		
48/59		48/60		48/60			47/61		
19.1 (3/4)					22.2 (7/8)				
41.3 (1 5/8)					44.5 (1 3/4)				
34.9 (1 3/8)					38.1 (1 1/2)				
19.1 (3/4)					19.1 (3/4)				
6.35 (1/4)					6.35 (1/4)				
1000									
30									
70 (outdoor unit up high) - 110 (outdoor unit down low)									
-5°C / 43°C									
-20°C / 27°C									
-5°C / 27°C									
64	64	64	64	64	64	64	64	64	64
50 - 130									
3950x1615x765					5300x1615x765				
909		1116		1164		1212			

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

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

(3) 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.

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

# PROJECT VRF R410A



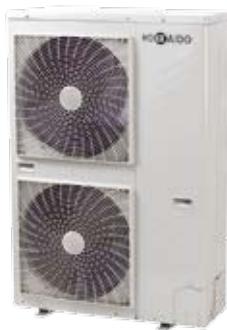
## XRV MULTI SYSTEM - FULL DC INVERTER

### XRV PLUS MINI

Heat pump

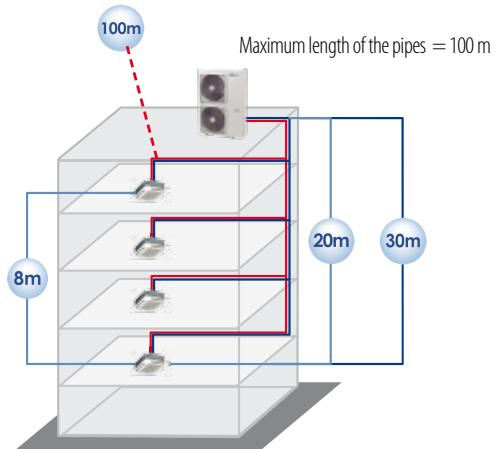


HCNU 804 XRV-1 Plus  
HCNU 1054 XRV-1 Plus



HCSU 1404 XRV-1 Plus  
HCSU 1604 XRV-1 Plus  
HCSU 1804 XRV-1 Plus

### SPLITTING LENGTHS AND HEIGHT DIFFERENCES



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

Slim, flexible design.

DC Inverter motor fan:

- Wider fan speed adjustment range
- Reduced noise level

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

Wide operating temperature range:

- Cooling -15°C ~ +48°C
- Heating -15°C ~ +27°C

Auto-addressing of indoor units.

Maximum distance between OU and the farthest IU = 70 m  
(50 m for HCNU 804 XRV-1 Plus + HCNU 1054 XRV-1 Plus )

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

Maximum height difference between OU (up high) and IU = 30 m

Maximum height difference between OU (down low) and IU = 20 m

Maximum height difference between IU = 8 m

Maximum length of the pipes = 100 m

Model		HCNU 804 XRV-1 Plus	HCNU 1054 XRV-1 Plus	HCSU 1404 XRV-1 Plus	HCSU 1604 XRV-1 Plus	HCSU 1804 XRV-1 Plus
Power	HP	2.85	3.75	5	6	6.5
Rated cooling capacity (1)	kW	7.20	9.00	14.00	15.50	17.50
Rated heating capacity (2)	kW	7.20	9.00	15.40	17.00	19.00
<b>Electrical data</b>						
Power supply	Volt/Hz/Ph	220-240/50/1		380-415/50/3		
Electric consumption in cooling mode (fully operational)	kW / A	1.82 / 8.27	2.30 / 10.4	3.95 / 9.3	4.52 / 10.7	5.30 / 12.5
Electric consumption in heating mode (fully operational)	kW / A	1.76 / 8.0	2.27 / 10.3	4.15 / 9.8	4.77 / 11.3	5.00 / 11.8
EER performance coefficient in cooling mode	w/w	3.95	3.91	3.54	3.43	3.30
COP performance coefficient in heating mode	w/w	4.09	3.97	3.71	3.56	3.80
<b>Refrigerant circuit/features</b>						
Refrigerant	Type	R 410A				
Compressor	Type	Rotary DC inverter MITSUBISHI				
Max fan air flow	m <sup>3</sup> /h	5500		6000		6800
Sound pressure level at 1 m max	dB(A)	54		57		59
Sound pressure level at 2.5 m max	dB(A)	46		49		51
Refrigerant connections	Liquid mm/inches	ø 9.53 (3/8")			ø 9.53 (3/8")	
	Gas mm/inches	ø 15.9 (5/8")			ø 19.1 (3/4")	
Max pipe length	m		100			
Max height difference between indoor units	m		8			
Max height difference between outdoor and indoor units	m		30 (outdoor unit up high) - 20 (outdoor unit down low)			
Operating temp. range in cooling mode	°C / DB		-15°C / 48°C			
Operating temp. range in heating mode	°C / WB		-15°C / 27°C			
Connectable indoor units	no.	4	5	6	7	9
Capacity of connected indoor unit	%			45 - 130		
<b>Dimensions and weight</b>						
Dimensions (LxHxD)	mm	1075x966x396		900x1327x320		
Net weight	Kg	75.5		95	102	107

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

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



## XRV MULTI SYSTEM - FULL DC INVERTER

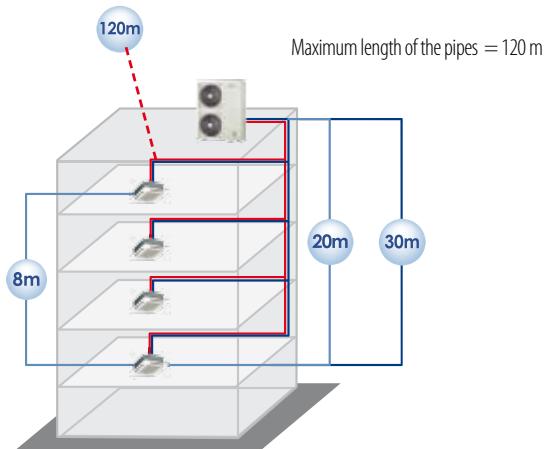
### XRV PLUS MINI

Heat pump



HCYU 2004 XRV-1 Plus  
HCYU 2244 XRV-1 Plus  
HCYU 2604 XRV-1 Plus

### SPLITTING LENGTHS AND HEIGHT DIFFERENCES



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

DC Inverter motor fan:

- Wider fan speed adjustment range
- Reduced noise level

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

Auto-addressing of indoor units.

Self-diagnosis function for main system problems.

Maximum distance between OU and the farthest IU = 70 m

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

Maximum height difference between OU (up high) and IU = 30 m

Maximum height difference between OU (down low) and IU = 20 m

Maximum height difference between IU = 8 m

Maximum length of the pipes = 120 m

Model		HCYU 2004 XRV-1 Plus		HCYU 2244 XRV-1 Plus		HCYU 2604 XRV-1 Plus	
Power	HP		7		8		9
Rated cooling capacity (1)	kW		20.0		22.4		26.0
Rated heating capacity (2)	kW		22.0		24.5		28.5
<b>Electrical data</b>							
Power supply	Volt/Hz/Ph				380-415/50/3		
Electric consumption in cooling mode (fully operational)	kW / A		6.10 / 14.4		6.80 / 16.1		7.60 / 18.0
Electric consumption in heating mode (fully operational)	kW / A		6.10 / 14.4		5.90 / 14.0		6.80 / 16.1
EER performance coefficient in cooling mode	w/w		3.28		3.29		3.42
COP performance coefficient in heating mode	w/w		3.61		4.15		4.19
<b>Refrigerant circuit/features</b>							
Refrigerant	Type	R 410A					
Compressor	Type	Rotary DC inverter MITSUBISHI					
Fan air flow	Lo/Hi	m³/h	10999		10494		10494
Sound pressure level at 1 m	Lo/Hi	dB(A)	55/59				56/60
Sound pressure level at 2.5 m	Lo/Hi	dB(A)	47/51				48/52
Refrigerant connections (3)	Liquid	mm/inches			Ø 9.52 (3/8")		
	Gas	mm/inches		Ø 19.1 (3/4")			Ø 22.2 (7/8")
Max pipe length	m				120		
Max height difference between indoor units	m				8		
Max height difference between outdoor and indoor units	m			30 (outdoor unit up high) - 20 (outdoor unit down low)			
Operating temp. range in cooling mode	°C / DB				-15°C / 48°C		
Operating temp. range in heating mode	°C / WB				-15°C / 27°C		
Connectable indoor units	no.		10		11		12
Capacity of connected indoor unit	%				50 - 130		
<b>Dimensions and weight</b>							
Dimensions (LxHxD) (4)	mm				1120x1558x400		
Net weight	Kg		137		146.5		147

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

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

(3) 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 90 m U and indoor temperature 27°C DB, 19°C WB.

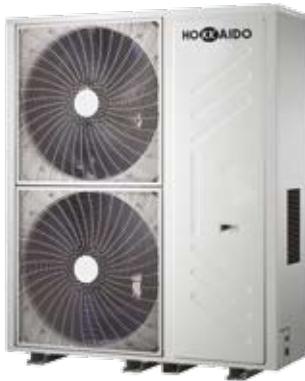
(4) Space between the paired units = 100 mm.



## XRV MULTI SYSTEM - FULL DC INVERTER

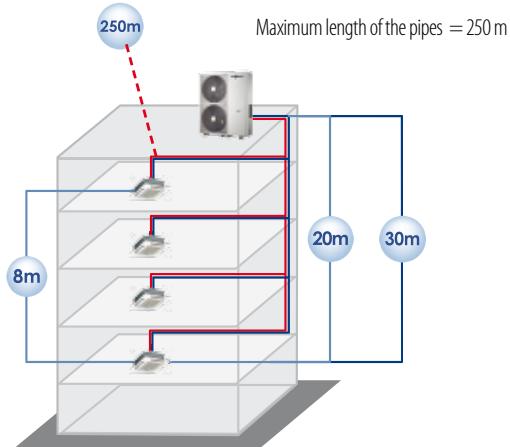
### XRV PLUS MINI

Heat pump



HCYU 4004 XRV-1 Plus  
HCYU 4504 XRV-1 Plus

### SPLITTING LENGTHS AND HEIGHT DIFFERENCES



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

DC Inverter motor fan:

- Wider fan speed adjustment range
- Reduced noise level

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

Auto-addressing of indoor units.

Self-diagnosis function for main system problems.

Maximum distance between OU and the farthest IU = 120 m

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

Maximum height difference between OU (up high) and IU = 30 m

Maximum height difference between OU (down low) and IU = 20 m

Maximum height difference between IU = 8 m

Maximum length of the pipes = 250 m

Model		HCYU 4004 XRV-1 Plus		HCYU 4504 XRV-1 Plus	
Power	HP		14		16
Rated cooling capacity (1)	kW		40.0		45.0
Rated heating capacity (2)	kW		45.0		50.0
<b>Electrical data</b>					
Power supply	Volt/Hz/Ph		380-415/50/3		
Electric consumption in cooling mode (fully operational)	kW / A		11.9 / 12x2		13.6 / 15.4x2
Electric consumption in heating mode (fully operational)	kW / A		11.1 / 12x2		12.7 / 15.4x2
EER performance coefficient in cooling mode	w/w		3.35		3.32
COP performance coefficient in heating mode	w/w		4.05		3.93
<b>Refrigerant circuit/features</b>					
Refrigerant	Type		R 410A		
Compressor	no. / Type		2/ Rotary DC inverter MITSUBISHI		
Fan air flow	Lo/Hi	m <sup>3</sup> /h	16575		16575
Sound pressure level at 1 m	Lo/Hi	dB(A)	55/62		
Sound pressure level at 2.5 m	Lo/Hi	dB(A)	47/50		
Refrigerant connections (3)	Liquid	mm/inches	Ø 12.7 (1/2)		
	Gas	mm/inches	Ø 22.2 (7/8)		Ø 25.4 (1")
Max pipe length		m	250		
Max height difference between indoor units		m	8		
Max height difference between outdoor and indoor units		m	30 (outdoor unit up high) - 20 (outdoor unit down low)		
Operating temp. range in cooling mode	°C / DB		-5°C / 43°C		
Operating temp. range in heating mode	°C / WB		-15°C / 24°C		
Connectable indoor units	no.		14		15
Capacity of connected indoor unit	%		50 - 130		
<b>Dimensions and weight</b>					
Dimensions (LxHxD) (4)	mm		1360x1650x540		1460x1650x540
Net weight	Kg		240		275

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

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

(3) 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 U and indoor temperature 27°C DB, 19°C WB.

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

# PROJECT VRF R410A

## XRV MULTI SYSTEM

Indoor units - FULL DC INVERTER series

		kW	1.50	1.80	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	12.50	14.00	16.00	20.00	25.00	28.00
Cassette units	60x60 round flow		•		•	•	•	•										
	84x84								•	•	•	•		•				
Ducted	low pressure head			•	•		•											
	medium pressure head					•	•	•	•	•	•	•		•				
	high pressure head									•		•		•	•		•	
	all-outside air											•	•	•	•	•	•	
Wall			•		•	•	•	•	•	•	•							
Floor/ ceiling									•	•	•	•		•				
Floor	console				•	•	•	•										
	recessed					•	•		•									

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### HTFU XRV-K

CASSETTE 60X60  
ROUND FLOW



Remote control  
(standard)



5 power levels: 1.50~4.50 kW.

Ultra-compact design.

TFP 352 IHRS panel with 360° air diffusion.

Wide louvre oscillation range up to 40°.

Electrical box inside the machine body.

Pre-set for outside air inlet.

Condensate drain pump with possibility of raising the discharge up to 360 mm from the outlet height.

Model		HTFU 155 XRV-K*	HTFU 225 XRV-K	HTFU 285 XRV-K	HTFU 365 XRV-K	HTFU 455 XRV-K
Cooling capacity	kW	1.5	2.2	2.8	3.6	4.5
Heating capacity	kW	1.7	2.4	3.2	4.0	5.0
Dehumidifying capacity	l/h	0.8	1.0	1.0	1.2	1.5
Power supply	Volt/Hz/Ph			220/50/1		
Electric consumpt.	W	14	15	16	21	
Air flow	Lo/Me/Hi	m³/h	364 / 449 / 526	405 / 503 / 576	409 / 521 / 610	
Noise level at 1.5 m	Lo/Me/Hi	dB(A)	21/32/33	22/32/34	27/34/40	
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	13/24/25	14/24/26	19/26/32	
Unit dimensions	LxHxD	mm		570x260x570		
Grille dimensions	LxHxD	mm		647x50x647		
Net weight	unit + grille	Kg	19		24.1	
Refrigerant connections	Liquid	mm/inches		Ø 6.35 (1/4)		
	Gas	mm/inches		Ø 12.7 (1/2)		
Condensate drain		mm		25		
Condensate drain pump pressure head		mm		360 (raising up of drain hose)		
Refrigerant control		type		Electronic expansion valve box		
Remote control		type		IR Remote Control (standard)		

\* Can only be connected to XRV PLUS MINI Full DC Inverter line outdoor units.

### HTBU XRV-K

CASSETTE 84x84



Remote control  
(standard)



5 power levels: 5.60~14.00 kW.

Opening louvre angle up to 42°.

Low resistance and low noise fan profile

TBP 712 IHXR panel and 4 removable corners for easy installation.

Condensate drain pump with possibility of raising the discharge up to 360 mm from the outlet height.

Internal electronic control (accessible from the panel).

Pre-set for connecting a duct for outside air intake and a duct for cooling/heating a small adjacent room.

Model		HTBU 565 XRV-K	HTBU 715 XRV-K	HTBU 905 XRV-K	HTBU 1125 XRV-K	HTBU 1405 XRV-K
Cooling capacity	kW	5.6	7.1	9.0	11.2	14.0
Heating capacity	kW	6.3	8.0	10.0	12.5	15.0
Dehumidifying capacity	J/h	1.8	2.4	3	3.8	4
Power supply	Volt/Hz/Ph			220/50/1		
Electric consumpt.	W	31	46	75	94	
Air flow	Lo/Me/Hi	m³/h	704/857/1029	748/996/1200	1030/1239/1596	1280/1500/1800
Noise level at 1.5 m	Lo/Me/Hi	dB(A)	34/38/43	34/39/45	36/41/47	44/47/50
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	26/30/35	26/31/37	28/33/39	37/40/43
Unit dimensions	LxHxD	mm	840x230x840		840x300x840	
Grille dimensions	LxHxD	mm		950x54.5x950		
Net weight	unit + grille	kg	29		32.4	35
Refrigerant connections	Liquid	mm/inches		Ø 9.53 (3/8")		
	Gas	mm/inches		Ø 15.9 (5/8")		
Condensate drain	Ø mm			32		
Pre-set for fresh air intake	Ø mm			75		
Pre-cut for adjacent room air	mm	350 x 85			350 x 155	
Condensate drain pump pressure head	mm			360 (raising up of drain hose)		
Refrigerant control	Type			Electronic expansion valve box		
Remote control	Type			IR Remote Control (standard)		

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### HRDU XRV-K

DUCTED  
WITH LOW PRESSURE HEAD



Remote control  
(standard)



3 power levels: 1.80~3.60 kW.

Ultra-compact design: only 210 mm in height; thanks to its small size it is ideal for use in hotels.

DC Inverter fan.

Low acoustic impact: only 24 dB(A) (1.80~2.20 kW).

Metal body.

Available pressure head: 10 Pa.

Model		HRDU 185 XRV-K	HRDU 225 XRV-K	HRDU 365 XRV-K
Cooling capacity	kW	1.8	2.2	3.6
Heating capacity	kW	2.2	2.6	4.0
Dehumidifying capacity	l/h	0.6	0.7	1.2
Power supply	Volt/Hz/Ph		220/50/1	
Electric consumpt.	W	23		30
Air flow	Lo/Me/Hi	m³/h	415/520/590	465/560/655
Noise level at 1 m	Lo/Me/Hi	dB(A)	24/26/34	28/31/37
Noise level at 2,5 m	Lo/Me/Hi	dB(A)	16/18/26	20/23/29
Dimensions	LxHxD	mm	740x210x470	
Available static pressure	Pa		10 (max 30)	
Net weight	kg		13.5	
Refrigerant connections	Liquid	mm/inches	ø 6.35 (1/4")	
	Gas	mm/inches	ø 12.7 (1/2")	
Condensate drain	ø mm		25	
Pre-set for fresh air intake.	ø mm		-	
Refrigerant control	Type		Built-in electronic expansion valve	
Remote control	Type		IR Remote Control (standard)	

### HUCU XRV-K

DUCTED  
WITH MEDIUM PRESSURE HEAD



Wired remote  
control  
(standard)



8 power levels: 2.80~14.00 kW.

Ultra-compact design: only 210 mm (2.80~7.10 kW) and 270 mm (9.00~11.20 kW) in height.

Low acoustic impact: only 31 dB(A) (2.80 kW).

DC Inverter fan.

Available pressure head: 30 Pa (2.80~7.10 kW); 50 Pa (9.00 kW); 80 Pa (11.20kW); 100 Pa (14.00 kW).

Bottom or rear air intake, selectable at time of installation with interchangeable panel.

Electric box can be removed from the unit body and can be installed up to 1 m away.

Display board can be freely positioned at a distance of up to 3m.

Model		HUCU 285 XRV-K	HUCU 365 XRV-K	HUCU 455 XRV-K	HUCU 565 XRV-K	HUCU 715 XRV-K	HUCU 905 XRV-K	HUCU 1125 XRV-K	HUCU 1405 XRV-K
Cooling capacity	kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Heating capacity	kW	3.2	4.0	5.0	6.3	8.0	10.0	12.5	15.5
Dehumidifying capacity	l/h	1.0	1.2	1.5	1.8	2.4	3.0	3.8	4.8
Power supply	Volt/Hz/Ph				220/50/1				
Electric consumpt.	W	39	45	58	89	68	108	178	204
Air flow	Lo/Me/Hi	m³/h	380/450/521	426/541/592	550/640/748	566/640/821	778/940/1021	940/1090/1290	1352/1550/1780
Noise level at 1 m	Lo/Me/Hi	dB(A)	31/34/36	33/36/37	33/37/38	34/38/40	37/38/44	37/41/47	38/42/47
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	23/26/28	25/28/29	25/29/30	26/30/32	29/30/36	29/33/39	30/34/39
Dimensions	LxHxD	mm	740x210x500		960x210x500		1180x210x500	1180x270x775	1240x300x865
Available static pressure	Lo/Hi	Pa		10/30			10/50	10/80	10/100
Net weight	kg		17.5		22.5		28	40	49
Refrigerant connections	Liquid	mm/inches		ø 6.35 (1/4")			ø 9.53 (3/8")		
	Gas	mm/inches		ø 12.7 (1/2")			ø 15.9 (5/8")		
Condensate drain	ø mm					25			
Pre-set for fresh air intake.	ø mm			92				125	
Refrigerant control	Type						Built-in electronic expansion valve		
Remote control	Type						Wired control standard supplied		

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### HVDU XRV-K

DUCTED  
HIGH PRESSURE HEAD



Wired remote  
control  
(standard)



Model		HVDU 715 XRV-K	HVDU 1125 XRV-K	HVDU 1605 XRV-K	HVDU 2005 XRV-K	HVDU 2805 XRV-K
Cooling capacity	kW	7.1	11.2	16.0	20.0	28.0
Heating capacity	kW	8.0	12.5	17.0	22.5	31.5
Dehumidifying capacity	l/h	2.4	3.8	5.2	7	10
Power supply	Volt/Hz/Ph			220/50/1		
Electric consumpt.	W	180	380	420	800	
Air flow	Lo/Me/Hi m³/h	1250/1390/1500	1710/1930/2080	2400/2660/3400	4620/4660/4820	4690/4760/4870
Noise level at 1.5 m	dB(A)	42/44/46	45/47/50	50/52/54	50/53/57	
Noise level at 2.5 m	dB(A)	34/36/38	37/39/42	42/44/46	42/45/49	
Dimensions	LxHxD mm	952x420x690		1300x420x690		1443x470x810
Available static pressure	Pa		0/196			40-200
Net weight	Kg	41	47	70		108
Refrigerant connections	Liquid Gas mm/inches		ø 9.53 (3/8")			2 x ø 9.53 (3/8")
Condensate drain	ø mm		ø 15.9 (5/8")			2 x ø 15.9 (5/8")
Refrigerant control	type		Built-in electronic expansion valve			32
Remote control	type				2 x Electronic expansion valve box	
				Wired control standard supplied		

### HVDU-F XRV-K

DUCTED  
ALL-OUTSIDE AIR



Wired remote  
control  
(standard)



Model		HVDU-F 1255 XRV-K	HVDU-F 1405 XRV-K	HVDU-F 2005 XRV-K	HVDU-F 2505 XRV-K	HVDU-F 2805 XRV-K
Cooling capacity	kW	12.5	14.0	20.0	25.0	28.0
Heating capacity	kW	10.5	12.0	18.0	20.0	22.0
Power supply	Volt/Hz/Ph			220/50/1		
Electric consumpt.	W	370		615	670	
Air flow	Lo/Me/Hi m³/h		1470/2000/2440		2890/3430/3860	
Noise level at 1.5 m	dB(A)	48/50/52		49/51/52	50/52/53	
Noise level at 2.5 m	dB(A)	40/42/44		41/43/44	42/44/45	
Dimensions	LxHxD mm	1300x420x690			1443x470x810	
Available static pressure	Pa			0-200		
Net weight	Kg	63			108	
Refrigerant connections	Liquid Gas mm/inches	ø 9.53 (3/8")			2 x ø 9.53 (3/8")	
Condensate drain	ø mm	ø 15.9 (5/8")			2 x ø 15.9 (5/8")	
Refrigerant control	type		Built-in electronic expansion valve			32
Remote control	type				2 x Electronic expansion valve box	
				Wired control standard supplied		

5 power levels: 7.10~28.00 kW.

Ultra-compact design: only 420 mm in height for models from 7.10 to 16.00 kW.

Low acoustic impact: only 42 dB(A) for 7.10 kW models.

DC Inverter fan.

Available pressure head:

196 Pa (7.10~16.00 kW); 200 Pa (20.00~28.00).

Rear air intake.

Filter supplied standard.

Ease of maintenance.

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

5 power levels: 12.50~28.00 kW.

Ultra-compact design: only 420 mm in height for models from 12.50 to 14.00 kW.

Max pressure head of fans: 200 Pa.

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

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### HKEU XRV-K

WALL



Remote control  
(standard)



Model		HKEU 155 XRV-K	HKEU 225 XRV-K	HKEU 285 XRV-K	HKEU 365 XRV-K	HKEU 455 XRV-K	HKEU 565 XRV-K	HKEU 715 XRV-K	HKEU 905 XRV-K
Cooling capacity	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	9.0
Heating capacity	kW	1.7	2.6	3.2	4.0	5.0	6.3	8.0	10.0
Dehumidifying capacity	l/h	0.5	0.7	1	1.2	1.5	1.8	2	2.2
Power supply	Volt/Hz/Ph				220/50/1				
Electric consumpt.	W	15	19	22	26	31	50	67	
Air flow	Lo/Me/Hi	m³/h	337/389/447	417/462/505	460/499/564	577/705/841	708/840/915	714/916/1211	710/915/1373
Noise level at 1 m	Lo/Me/Hi	dB(A)	23/25/28	29/30/31	34/36/38	34/38/45	34/38/46		
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	15/17/21	21/22/23	26/28/30	26/30/37	26/30/38		
Dimensions	LxHxD	mm		915x290x230		1070x315x230		1250x325x230	
Net weight	kg	11.6		12		14.4		18.3	
Refrigerant connections	Liquid	mm/inches		ø 6.35 (1/4")			ø 9.53 (3/8")		
	Gas	mm/inches		ø 12.7 (1/2")			ø 15.9 (5/8")		
Condensate drain	ø mm				16.5				
Refrigerant control	Type				Built-in electronic expansion valve				
Remote control	Type				IR Remote Control (standard)				

### HSFU XRV-K

FLOOR/CEILING



Remote control  
(standard)



Model		HSFU 565 XRV-K	HSFU 715 XRV-K	HSFU 905 XRV-K	HSFU 1125 XRV-K	HSFU 1405 XRV-K
Cooling capacity	kW	5.6	7.1	9.0	11.2	14.0
Heating capacity	kW	6.3	8.0	10.0	12.5	15.5
Dehumidifying capacity	l/h	1.9	2.4	3.0	3.8	4.0
Power supply	Volt/Hz/Ph			220/50/1		
Electric consumpt.	W	94		126		130
Air flow	Lo/Me/Hi	m³/h	720/830/930	1050/1170/1280	1580/1700/1890	
Noise level at 1 m	Lo/Me/Hi	dB(A)	36/38/40	40/43/45	42/45/47	
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	28/30/32	32/35/37	34/37/39	
Dimensions	LxHxD	mm	990x660x203	1280x660x203	1670x680x244	
Net weight	kg	27		33		49
Refrigerant connections	Liquid	mm/inches		ø 9.53 (3/8")		
	Gas	mm/inches		ø 15.9 (5/8")		
Condensate drain	ø mm			25		
Refrigerant control	Type			Built-in electronic expansion valve		
Remote control	Type			IR Remote Control (standard)		

8 power levels: 1.50~9.00 kW.

New design for models 7.10~9.00 kW.

Right side refrigerant connection (7.10~9.00 kW).

Extremely quiet: only 23 dB(A) (1.50 kW)  
only 29 dB(A) (2.20 ~3.60 kW).

DC Inverter fan.

New built-in electronic expansion valve with 2000 pulse/min.

Washable standard filter & anti-formaldehyde filter to eliminate the harmful effects of the gas released in the environments.

5 power levels: 5.60~14.00 kW.

3 fan speeds.

The innovative Auto Swing & Wide Angle functions: the motorized horizontal & vertical louvres optimally adjust the air flow, guaranteeing better air distribution inside the air-conditioned room.

DC Inverter fan.

Waterproofing of the condensate drip tray (special treatment with water-repellent film)

Built-in electronic expansion valve.

Easy installation with unit attached to the wall or ceiling (brackets supplied standard).

Electric wiring and refrigerant connections can be reached from the air intake grille.

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### HFIU XRV-K

CONSOLE



Remote control  
(standard)



4 power levels: 2.20~4.50 kW.

Ultra-compact design: only 210 mm deep.

DC Inverter fan.

Dual capacity to control air output floor: upper and lower.

Front and side air intake.

5 fan speeds.

Anti-formaldehyde filter to eliminate the harmful effects of the gases released in the environments.

Model		HFIU 225 XRV-K	HFIU 285 XRV-K	HFIU 365 XRV-K	HFIU 455 XRV-K
Cooling capacity	kW	2.2	2.8	3.6	4.5
Heating capacity	kW	2.6	3.2	4.0	5.0
Dehumidifying capacity	l/h	0.7	1	1.2	1.5
Power supply	Volt/Hz/Ph		220/50/1		
Electric consumpt.	w	20	25		45
Air flow	Lo/Hi	m³/h	229/345/430	229/430/510	400/512/660
Noise level at 1 m	Lo/Me/Hi	dB(A)	26/32/38	27/33/39	36/39/42
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	18/24/30	19/25/31	28/31/34
Dimensions	LxHxD	mm		700x600x210	
Net weight	Kg	14		15	
Refrigerant connections	Liquid	mm/inches		6.35 (1/4")	
	Gas	mm/inches		12.7 (1/2")	
Condensate drain		mm		16	
Refrigerant control		type		Built-in electronic expansion valve	
Remote control		type		IR Remote Control (standard)	

### HFCU XRV-K

RECESSED



Remote control  
(standard)



3 power levels: 2.80~5.60 kW.

Extremely quiet: only 29 dB(A) for the 2.80 kW model.

DC Inverter fan.

Lower air intake.

Built-in expansion valve and electronic control

Model		HFCU 285 XRV-K	HFCU 365 XRV-K	HFCU 565 XRV-K
Cooling capacity	kW	2.8	3.6	5.6
Heating capacity	kW	3.2	4.0	6.3
Dehumidifying capacity	l/h	1.0	1.2	1.8
Power supply	Volt/Hz/Ph		220/50/1	
Electric consumpt.	W	24	19	41
Air flow	Lo/Me/Hi	m³/h	421/485/569	375/522/624
Noise level at 1 m	Lo/Me/Hi	dB(A)	29/33/36	33/36/37
Noise level at 2.5 m	Lo/Me/Hi	dB(A)	21/25/28	25/28/29
Dimensions	LxHxD	mm	840x545x212	1040x545x212
Available static pressure (max)	Pa		10	1340x545x212
Net weight	Kg	21	28	
Refrigerant connections	Liquid	mm/inches	ø 6.35 (1/4")	ø 9.53 (3/8")
	Gas	mm/inches	ø 12.7 (1/2")	ø 15.9 (5/8")
Condensate drain	ø mm		25	
Refrigerant control		type	Built-in electronic expansion valve	
Remote control		type	IR Remote Control (standard)	

# PROJECT VRF R410A

## XRV MULTI SYSTEM - FULL DC INVERTER

### EEV KIT

KITS FOR AHU CONNECTION WITH DIRECT EXPANSION COIL TO XRV HOKKAIDO SYSTEMS

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.



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

### EEV-KIT ADVANTAGES

High energy efficiency thanks to XRV technology which involves:

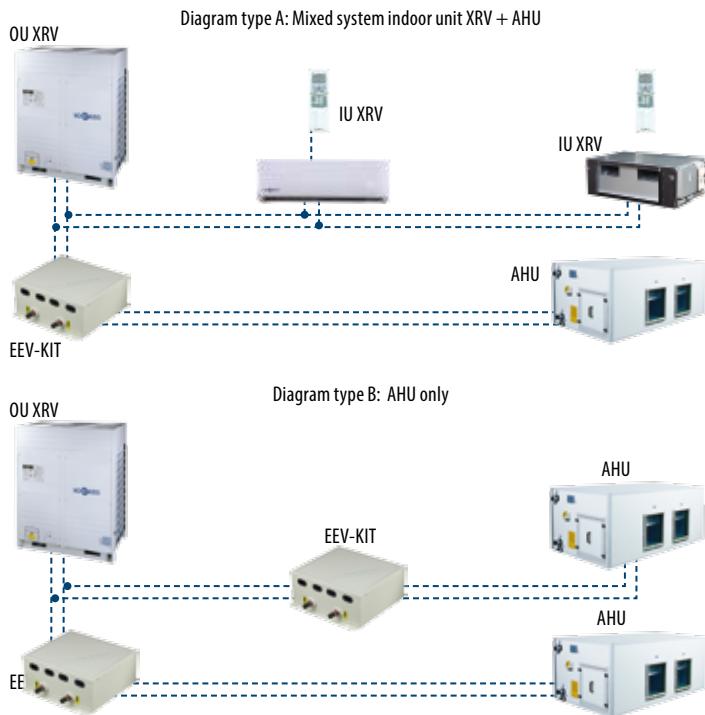
- Improved indoor temperature control in rooms
- Reduced energy consumption linked to Inverter technology
- Reduced outdoor unit **start&stop** cycles
- Lower installation and maintenance costs with respect to traditional systems which use an AHU

### FUNCTIONALITY AND INSTALLATION

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

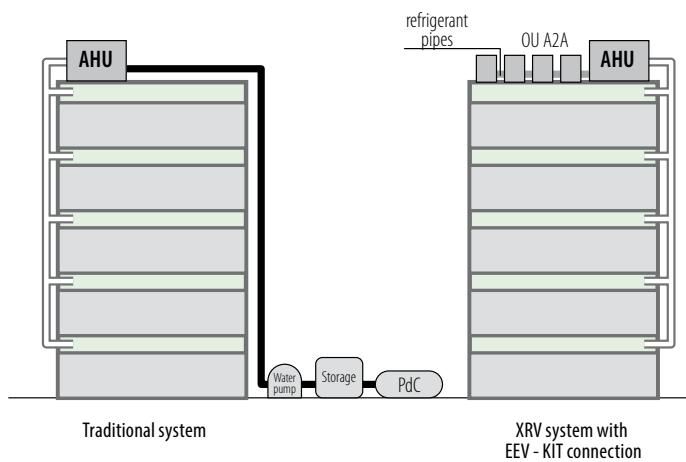
- **Failure feedback function:** error codes can be shown on the display when malfunctions occur. It is also possible to verify the set temperature.
- **Maximum Number of EEV-Kit that can be connected to an AHU:** 4 (maximum reachable capacity 224 kW).
- **Maximum distance between EEV Kits and AHU:**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

### EEV-KIT APPLICATION DIAGRAMS



### TRADITIONAL SYSTEMS vs XRV WITH EEV-KIT

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



# PROJECT VRF R410A

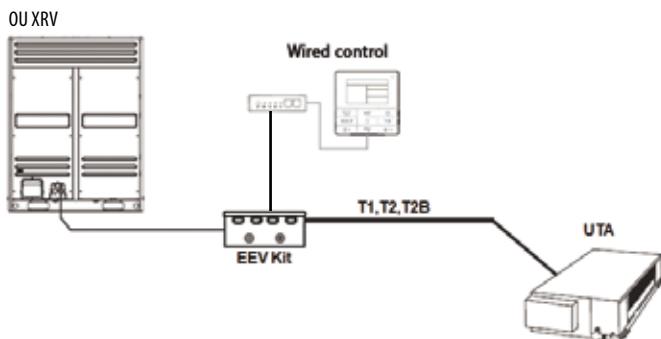
## XRV MULTI SYSTEM - FULL DC INVERTER

### EEV KIT

#### TECHNICAL DATA

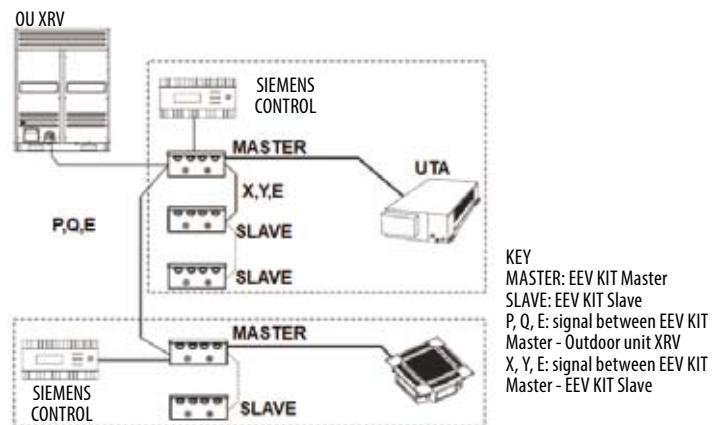
Model	HAHU 9-20 XRV-K	HAHU 20-36 XRV-K	HAHU 36-56 XRV-K
Power		220 ~ 240V - 50Hz	
Indoor unit capacity (kW)	9-20	20.1 - 36	36.1 - 56
hxld (mm)		375 x 350 x 150	
In/out refrigerant pipe dimensions (inches)	3/8" – 3/8"	1/2" – 1/2"	5/8" – 5/8"

#### 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



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	IU rated capacity (kW)
HAHU 9-20 XRV-K	3.2	Between 9.0 and 11.2 kW
	4	Between 11.2 and 14.0 kW
	5	Between 14.0 and 18.0 kW
	6	Between 18.0 and 20.0 kW
HAHU 20-36 XRV-K	8	Between 20.0 and 25.0 kW
	10	Between 25.0 and 30.0 kW
	12	Between 30.0 and 36.0 kW
HAHU 36-56 XRV-K	14	Between 36.0 and 40.0 kW
	16	Between 40.0 and 45.0 kW
	18	Between 45.0 and 50.0 kW
	20	Between 50.0 and 56.0 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 82 kW, 2 EEV-KITS can be installed:  
HAHU 36-56 XRV-K - setting capacity 20HP  
HAHU 20-36 XRV-K - setting capacity 12HP