HITACHI

INSTALLATION FLEXIBILITY.
OUTSTANDING COOLING EFFICIENCY.
FOR COMMERCIAL SPACES.

air

IVX/MINI IVX INVERTER VRF AIRCONDITIONING SYSTEM

ABOUT eer

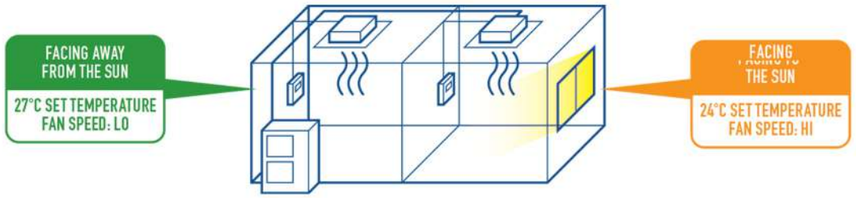
IVX with Full DC Inverter Technology

- Equipped with our revolutionary FULL DC Inverter Technology featuring three DC Inverter components (Compressor, PCB and Fan Motor) that lower power consumption and work more efficiently than AC motors.
- Uses Eco-friendly R410A refrigerant that has low ozone depletion potential, thus allowing the air conditioner to consume less energy.
- Optimized for long piping installation up to 150 meters

ENVIRONMENT-FRIENDLY REFRIGERANT
R410A

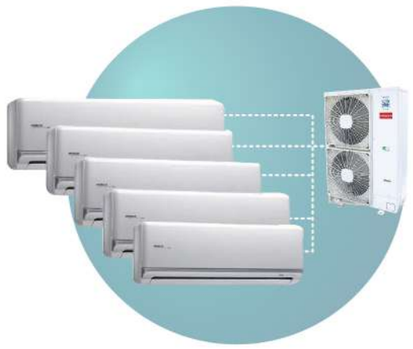
INDIVIDUAL OPERATIONS FOR INDOOR UNITS

Each indoor unit can operate independently based on different room conditions.



COMPATIBLE INDOOR UNITS

The IVX with Full DC Inverter Technology (DUAL FAN) can connect up to fourteen (14) indoor units.

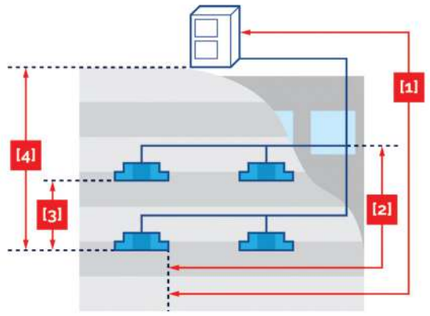


IVX
GENERAL UNIT DATA

Model			RAM-125 FSPH(B)	RAM-140 FSPH(B)	RAM-160 FSPH(B)	RAM-200 FSPH(DC)	RAM-250 FSPH(DC)	RAM-280 FSPH(DC)	RAM-335 FSPH(DC)
Power Supply			FSPH Model: AC 3, 230V, 60Hz / FSPH B Model AC 1, 230V, 60Hz			FSPH Model: AC 3, 230V, 60Hz / FSPHDC Model AC 3, 380V, 60Hz			
Outer Dimensions (WxDxH)		mm	950 x 370 x 1,380	950 x 370 x 1,380	950 x 370 x 1,380	950 x 370 x 1,380	950 x 370 x 1,380	1,100 x 390 x 1,650	1,100 x 390 x 1,650
Nominal Cooling Capacity		kW	12.5	14.1	16.0	20.0	25.0	28.0	33.5
Cooling Power Consumption		kW	2.56 / 2.65	3.18 / 3.20	3.82 / 3.96	5.06 / 5.04	7.29/ 7.35	7.94/ 7.49	12.00 / 11.70
Starting Current	230V	A	8.0 / 14.0	8.0 / 14.0	8.0 / 14.0	7.0	7.0	7.0	7.0
	380V	A	-	-	-	4.0	4.0	4.0	4.0
Running Current	230V	A	7.5 / 13.4	9.3 / 16.2	11.1 / 20.0	14.8	21.3	23.2	35.0
	380V	A	-	-	-	8.5	12.4	12.6	19.8
Compressor Motor Output		kW	3.0	3.0	3.0	4.8	4.8	4.8	4.8
Condenser Fan	Air Flow	m^3/min	100	100	100	120	134	163	163
	Motor Output	kW (pole)	0.074 (8) + 0.074 (8)	0.074 (8) + 0.074 (8)	0.074 (8) + 0.074 (8)	0.183 (8) x 2	0.183 (8) x 2	0.183 (8) + 0.20 (6)	0.183 (8) + 0.20 (6)
Main Refrigerant Piping	Gas Line	mm	15.88 (with nut)	15.88 (with nut)	15.88 (with nut)	25.4	25.4	28.6	28.6
	Liquid Line	mm	9.53 (with nut)	9.53 (with nut)	9.53 (with nut)	9.53	12.7	12.7	12.7
Net Weight		kg	110	110	110	138	138	173	183
Sound Pressure Level		dB(a)	46	49	53	57	59	60	62
Refrigerant		-	R410A						

FLEXIBLE INSTALLATION

The IVX series air conditioner is optimized for long piping installation of up to 150 meters.



Model		RAM-125 FSPH(B)	RAM-140 FSPH(B)	RAM-160 FSPH(B)	RAM-200 FSPH(DC)	RAM-250 FSPH(DC)	RAM-280 FSPH(DC)	RAM-335 FSPH(DC)
Maximum Piping Length	Maximum Piping Length [1]	150 m	150 m	150 m	150 m	150 m	150 m	150 m
	Equivalent Length [1]	190 m	190 m	190 m	190 m	190 m	190 m	190 m
	Multi-kit to Indoor Unit [2]	40 m	40 m	40 m	15 m	15 m	15 m	15 m
Maximum Piping Lift	Between Indoor Units [3]	15 m	15 m	15 m	15 m	15 m	15 m	15 m
	Indoor Unit to Outdoor Unit (Upper) [4]	50 m	50 m	50 m	50 m	50 m	50 m	50 m
	Indoor Unit to Outdoor Unit (Lower) [4]	40 m	40 m	40 m	40 m	40 m	40 m	40 m
Maximum Indoor Units		7	8	9	12	12	14	14

OVERVOLTAGE PROTECTION RELAY (BUILT-IN)

Additional feature that protects the unit from damage caused by overvoltage. Abnormal overvoltage may be caused by various reasons including sudden power interruptions, lightning impulses, switching impulses, etc. (Applicable to IVX Dual Fan only).

IDEAL FOR


Convenience Stores


Coffee Shops


Residential Villas


Offices


Spas and Hotels

Mini IVX with Full DC Inverter Technology (Single Fan)

- Same DC Inverter Technology now in a more compact size that is 21% lighter
- DC fan motors work more efficiently compared to AC motors, giving you more cost savings.

ENVIRONMENT-FRIENDLY REFRIGERANT R410A

SINGLE REFRIGERANT PIPING SYSTEM

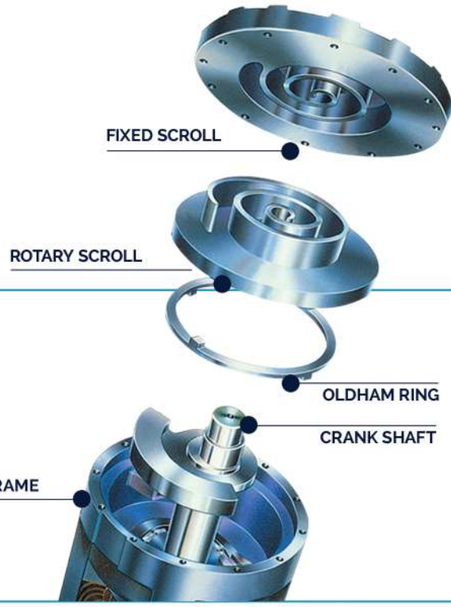
The single refrigerant piping system can reduce your use of refrigerants. The pipelines are streamlined for easy installation and less space consumption. The outdoor unit can be used for pipe connections compatible with various directions such as the front, back, and bottom of the installation. Long refrigerant piping can be installed.

ENERGY-SAVING

Hitachi's frequency inverter reduces energy loss (which is common in traditional start cycle operations). The unit utilizes a lower electrical load, reducing power consumption during operation.

QUIET OPERATION

The unit features a dynamically balanced fan optimally shaped to minimize noise.



HIGH EFFICIENCY SCROLL COMPRESSOR

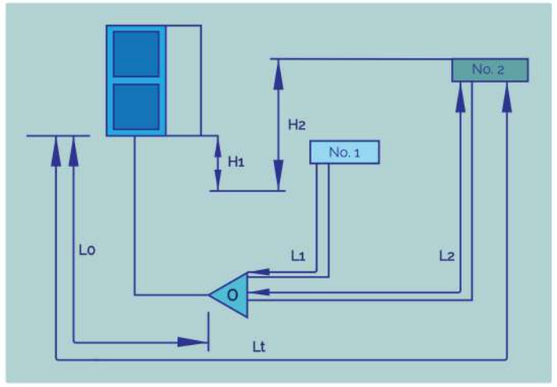
Hitachi's patented scroll compressor generates quick cooling, less vibrations and lower energy for virtually uninterrupted cooling operation.

CENTRAL SUPERVISION NETWORK SYSTEM (CS-NET)

CS-NET controls your whole air conditioning system or use the signal converter to access the control system online (LONWORKS-BACnet) for easy monitoring.

COMPATIBLE INDOOR UNITS

The Mini IVX with Full DC Inverter Technology (SINGLE FAN) can connect up to two (2) indoor units.



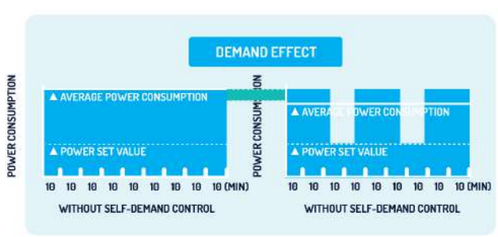
FLEXIBLE INSTALLATION

The Mini IVX series air conditioner is optimized for long installations of up to 95 meters.

(In this example, only one refrigerant pipe is used. In actual installation, however, separate pipes should be used for refrigerant and refrigeration oil.)

SELF-DEMAND CONTROL

With self-demand control feature, the unit can detect the current by power rationing.
It automatically controls power consumption by detecting current and controls its original external signals to select multiple operation modes ideal for different requirements.



Outdoor Unit Model			RAM-112FPSQB	RAM-125FPSQB	RAM-140FPSQB	RAM-160FPSQB
Total Pipe Length: L0+L1+L2			70	75	75	75
Max. Pipe Length (Actual): Lt	Pipe length from the outdoor unit to each indoor unit.		90 (70)	95 (75)	95 (75)	95 (75)
Max. Lapse Height between the outdoor unit and indoor units: H1	When the outdoor unit is higher than the indoor unit.		30	30	30	30
	When the outdoor unit is lower than the indoor unit.		20	20	20	20
Max. Lapse Height between indoor units: H2			3	3	3	3
Max. Pipe Length between branch pipes and indoor units: L1, L2			10	10	10	10
Refrigerant Pipe Size	Gas	Indoor	15.88	15.88	15.88	15.88
		Outdoor	15.88	15.88	15.88	15.88
	Liquid	Indoor	6.35	6.35	6.35	6.35
			9.53	9.53	9.53	9.53
		Outdoor	9.53	9.53	9.53	9.53

MINI IVX
GENERAL UNIT DATA

Model			RAM-112FPSQB	RAM-125FPSQB	RAM-140FPSQB	RAM-160FPSQB
Indoor Unit			2			
Power Supply			AC 1phase 230V 60Hz			
Outer Dimensions (WxDxH)		mm	1,060x370x940	1,060x370x940	1,060x370x940	1,060x370x940
Nominal Cooling Capacity		kW	11.2	12.5	14.1	16.0
Cooling Power Consumption		kW	2.66	3.20	3.96	5.16
EER		W/W	4.20	3.90	3.53	3.10
Running Current	230V	A	12.9	15.5	19.1	25.0
Starting Current	230V	A	13.0	13.0	13.0	13.0
Compressor Motor Output		kW	3.0	3.0	3.0	3.0
Condenser Fan	Air Flow	m3/min	60	66	72	74
	Motor Output	kW(pole)	0.183(8)	0.183(8)	0.183(8)	0.183(8)
Main Refrigerant Piping	Gas Line	mm	15.88(with nut)	15.88(with nut)	15.88(with nut)	15.88(with nut)
	Liquid Line	mm	9.53(with nut)	9.53(with nut)	9.53(with nut)	9.53(with nut)
Net Weight		kg	76	76	76	76
Sound Pressure Level		dB(A)	52	55	57	58
Refrigerant		---	R410A	R410A	R410A	R410A

Notes:
1. The above data is based on 100% capacity combination of the indoor units and the following conditions:
   - Indoor Temperature: 27°C(DB)/19°C(WB)
   - Outdoor Temperature: 35°C(DB)
   - Piping Length: 7.5 Meters Piping Lift: 0 Meter
   - Combined capacity range is up to 110%
2. The sound pressure level is based on the following conditions:
   - 1 Meter from the unit service cover surface and 1.5 meters from floor level.
   - During heating mode, the sound pressure level increases by approximately 1-2dB.
3. The sound pressure is measured in anechoic chamber so that reflected sound should be taken into consideration in the field.
4. For a comfortable environment, the compressor speed may be increased. The current of the above data is at normal operating conditions, not the maximum current.
5. Choose the field-supplied ELB, power switch, fuse and power cable according to the service manual or technical catalog.

True to Your Comfort ♡

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CEBU OFFICE: TEL.: (032) 232-6634 FAX: (032) 231-7533 SERVICE: (032) 232-8831
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Johnson Controls

HITACHI
Air conditioning solutions