Widest Range Of Products

VRF IV Plus 100% Inverter

VRF IV Sprint - Pre-piped VRF System

Inverter Ducted Splits & Packaged ACs

Packaged ACs & Ducted Splits

Water Cooled Centrifugal Chillers

Turbocor Chillers

Water Cooled Screw Chillers

Water Cooled Screw Chillers with VFD

Air Cooled Screw Chillers

Air Cooled and
Water Cooled Scroll Chillers

Air Cooled & Water Cooled
Condensing Units

Process Chillers

BLUE STAR
NOBODY COOLS BETTER®

For more information, please contact **BLUE STAR LIMITED** • **Ahmedabad**: 301 & 302, (3rd Floor), Abhishree Avenue, (Near) Nehru Circle, SM Road, Ambawadi, Ahmedabad - 380 015. Tel: (079) 40224000 • **Bengaluru**: Anjuman KAY A R R Tower No - 28, Ward No 77, Mission Road, Bangalore - 560027. Tel: (080) 41854000 • **Bhubaneshwar:** 3A, Satya Nagar, 2nd Floor, Bhubaneshwar - 751 007. Tel: (0674) 2572403 / 2573670 • **Chandigarh**: Adarsh Mall, 4th Floor, Plot No. 50, Industrial & Business Park, Phase - II, Chandigarh - 160 002. Tel: (0172) 5024000 • **Chennai**: KRM Plaza, No 2, Harrington Road, Chetpet, Chennai - 600 031. Tel: (91) (44) 42444000 • **Ghaziabad:** C 53A, Third Floor, Rajnagar District Center (RDC), Raj Nagar, Ghaziabad - 201001, Uttar Pradesh. Tel No: (0120) 2821400 • **Goa**: 210, 2nd Floor, Gera's Imperium I, Patto, Panjim, Goa - 403 001. Tel: (0832) 2438171/2437287 • **Gurgaon**: Block 2-A, DLF Corporate Park, DLF Qutab Enclave, Phase III, Mehrauli-Gurgaon Road, Gurgaon - 122 002. Tel: (0124) 4094100 • **Guwahati**: Oasis Plaza, Dr. B. Baroah Road, Ulubari, Kamrup, Guwahati - 781007. Tel: (0361) 2468496 • **Indore:** Shri Krishna Classic, First Floor, 139, Phadnis Colony, AB Road, Indore - 542 010. Tel: (0731) 4001211/4001311 • **Jaipur**: A-19, Ist Floor, Main Sahakar Path, Near Sahakar Bhavan, Jaipur - 302 001. Tel: (0141) 2744033-35 • **Kochi**: 2nd Floor, Millennium Plaza, MKK Nair Road, Alinchuvadu Junction, Kochi - 682 024. Tel: (0484) 4499000 • **Kolkata**: 7, Hare Street, Kolkata - 700 001. Tel: (033) 22134100 • **Ludhiana:** SCO 16-17, Feroze Gandhi Market, Fortune Chambers, 3rd Floor, Ludhiana - 141001 (Punjab), Tel: 0161 5001404 • **Lucknow**: 177/4, Faizabad Road, Lucknow - 226 007. Tel: (0522) 4034000 • **Mumbai**: Blue Star House, 9-A, Ghatkopar Link Road, Saki Naka, Mumbai - 400 072. Tel: (022) 66684100 • **Nagpur**: 219, Bajaj Nagar, 1st Floor, South Ambazari Road, Nagpur - 440 010. Tel: (0712) 2249000 / 6624000 • **Pune**: 201/A, Nityanand Complex, 1st Floor, 247/A, Bund Garden Road, Pune - 411 001. Tel: (020) 41044000 / 26169332 • **Raipur**: Alaska Corporates, 3rd Floor, Opp. VIP Road, Jivan Vihar Colony, G E Road, Raipur, Chhattisgarh - 492 006. Tel: (0771) 6544000 • **Secunderabad**: 207, Sikh Road, Bantia Estate, Secunderabad - 500 003. Tel: (040) 44004100 • **Thiruvananthapuram**: TC IV/962, 'Chandrika', Sree Chitra Nagar, PipeLine Road, Kawdiar, Thiruvananthapuram - 695 003. Tel: (0471) 2720025 / 65 • **Vadodara**: Ramakrishna Chambers, 7th Floor, Productivity Road, Alkapuri, Vadodara - 390 007. Tel: (0265) 2330334 / 6614100 • **Visakhapatnam**: D. No. 49-24-65/1, Near Sankarmatam Road, Madhura Nagar, Visakhapatnam - 530 016. Tel: (0891) 2748405/ 2748433 • **Vijayawada:** No. 40-1-62, Nagas Hafeez Plaza, Opposite to grand modern supermarket, Near BENZ Circle, MG. Road, Vijayawada 10.Tel No. : 0866 2484004.
• **email: coolingsolutions@bluestarindia.com** • **Visit us at: www.bluestarindia.com** or SMS **'COOL'** to **57575**

BLUE STAR

VRF IV S
100% INVERTER

Side Discharge VRF System

Conserves Energy.
Saves Space.
Enhances Aesthetics.

2016 RANGE

Blue Star is India's leading AC&R company with over seven decades of experience and a pan-India presence.

The Company's expertise in the air conditioning industry and partnerships with global leaders have ensured the introduction of innovative products into the Indian market, that are state-of-the-art and offer both higher energy-efficiency and better performance.

With the advent of the VRF system, Blue Star pioneered a whole range of products for different applications, many of them with unique features.

The Blue Star VRF IV S, a Side Discharge Inverter VRF System is the latest VRF series to be launched by the Company.

Blue Star VRF IV S

The Blue Star VRF IV S is an inverter compressor - driven VRF system, specially designed using smaller capacity side discharge outdoor units (ODUs) that are perfect for many applications where there is limitation of floor space for installing outdoor units.

These ODUs can be placed in balconies, on canopies or within shafts and do not require large terrace spaces traditionally required by other VRF systems.

A wide range of indoor units (IDUs) complement these compact ODUs to offer excellent solutions for apartments, residential complexes, villas, offices, banks, hotels, restaurants, hospitals, healthcare centres, retail and other commercial spaces where space for ODUs is limited.

This system is also very suitable for niche applications such as BMS/control rooms, as an add-on system for additional loads in existing installations.

This system can be used for both cooling and heating purposes. In addition, features such as high energy-efficiency, low noise levels, compact sizes and superior aesthetics add to the appeal of this system in different applications.

Product line-up: Indoor Units

Appearance	Type	0.6	0.8	1	1.3	1.5	1.6	1.8	2	2.3	2.6	2.8	3.2		3.6	4	5	6.5	8
	Hi-Wall Units	●	●	●	●		●	●	●										
	Compact Cassettes	●	●	●	●	●	●												
	One-Way Cassettes	●	●	●	●	●													
	Two-Way Cassettes		●	●	●	●	●	●	●										
	Four-Way Cassettes			●	●	●		●	●	●	●		●		●	●	●		
	Floor Cum Ceiling Mounted Units					●			●		●		●			●			
	Verticool											●				●			
	High Static Ductable IDUs						●		●	●		●	●		●	●	●	●	●
	Low Static Ductable IDUs		●	●	●	●	●	●	●	●	●		●			●			
	Slim Ductable IDUs	●	●	●	●		●	●	●										

Appearance	Type	Air Flow Volume (M3/h)						
	Heat Recovery Ventilation System	350	500	800	1000	1500	2000	3000

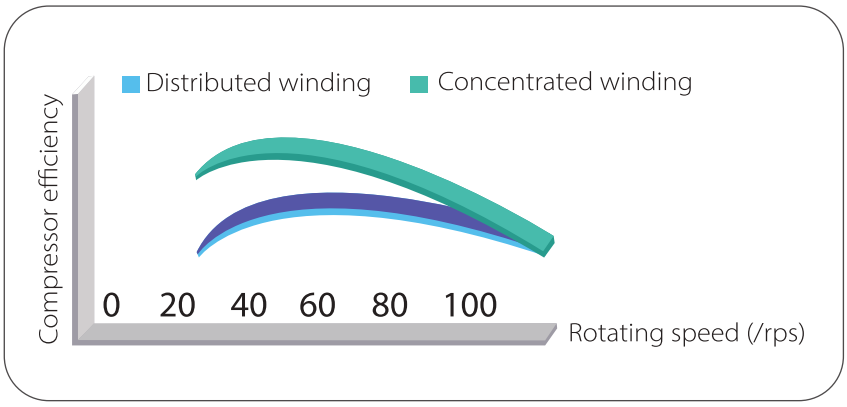
Product line-up : Outdoor Units

Appearance	HP
	4
	5
	6
	8
	10
	12

Unique Features

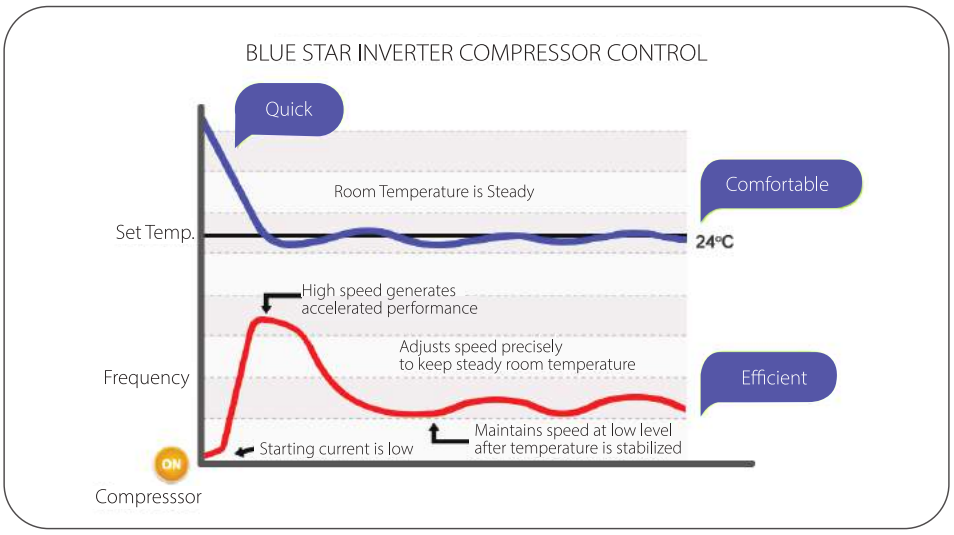
High-Efficiency DC Inverter Compressor

- DC inverter compressor* with a high pressure compressor chamber is used for higher efficiency. Compression efficiency of the high pressure chamber is more as compared to a low pressure chamber
- High-efficiency permanent magnet motor delivers enhanced performance
- Concentrated motor winding increases the efficiency of the compressor further



Low Starting Current

Starting current of inverter compressor is very low as compared to that of a non-inverter compressor. It helps to reduce capacity of power backup.



*in models above 8HP

Stepless Capacity Control with DC Motors

Outdoor Units

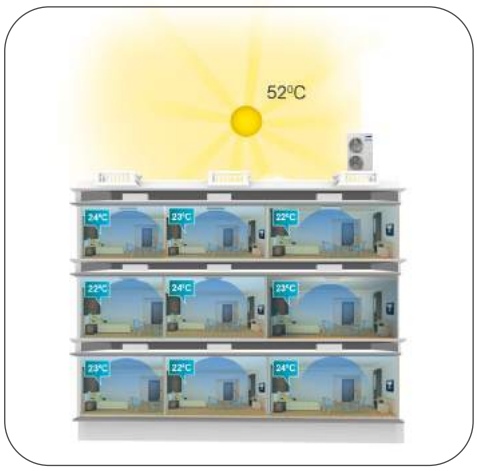
DC Inverter fan motor, used in the outdoor unit, has a stepless control.

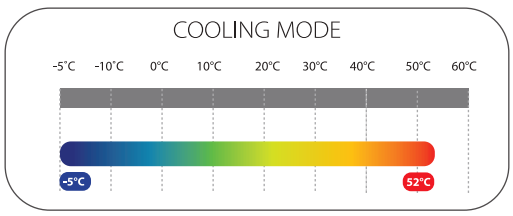
Indoor Units

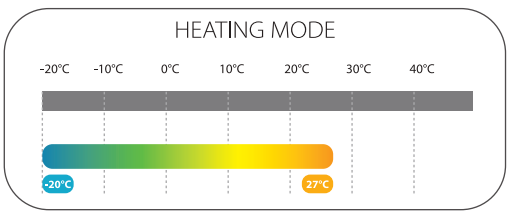
Compared to conventional motors, a brushless DC motor is 30% more efficient. The motor speed is varied to suit refrigerant flow, using a computerised control logic. This not only results in power saving but also in higher cooling comfort.

Wide Operating Temperature Range

- This system can operate in a wide ambient temperature range, from -10°C to 52°C.







Low Noise Design

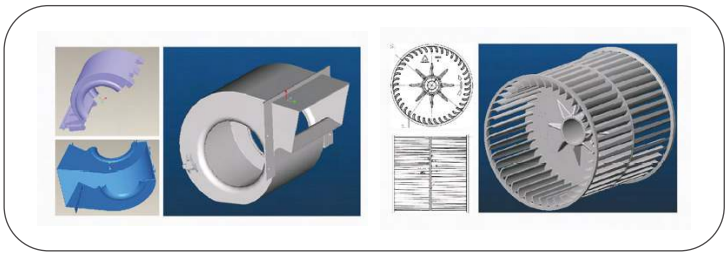
Low Noise Outdoor Unit

Noise is as low as 45 dBA from the ODU when in Quiet Mode operation, thanks to the optimised design of fans and the compressor system.

Low Noise Indoor Unit

Noise is as low as just 22 dBA from some IDUs thanks to following unique design features:

- Specially designed centrifugal fan blade with low noise volute
- Specially designed inlet angle of centrifugal fan blade with optimal diameter ratio between internal and external circles of impeller for higher air flow with minimal fan noise

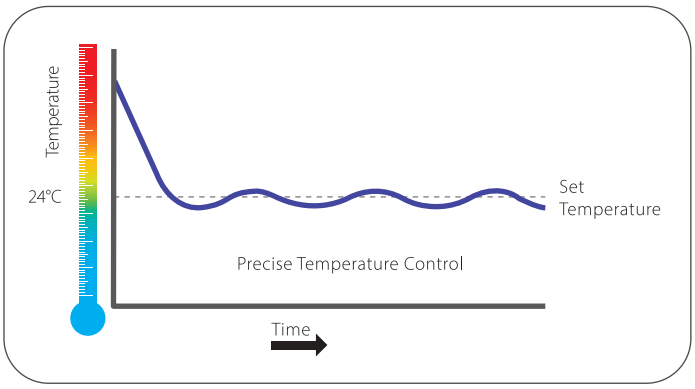


- Silent electronic expansion valves

Advanced super-cooling control and oil-return control in heat mode to prevent liquid flow noise

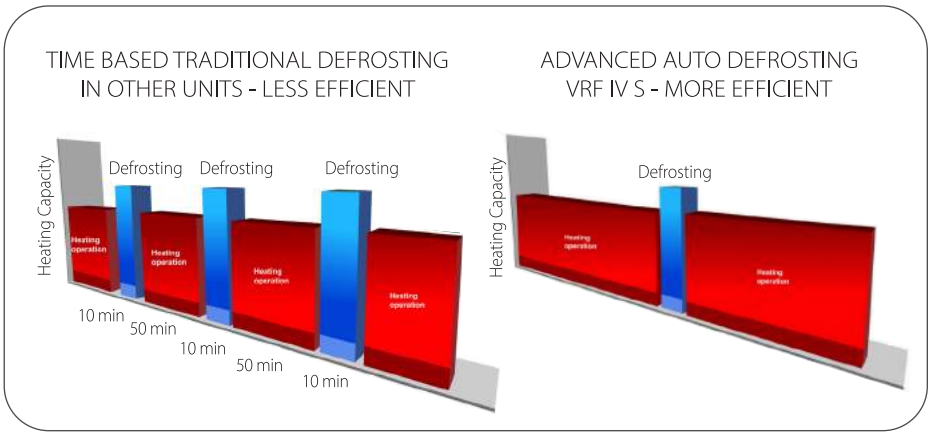
Intelligent Temperature Control

Intelligent temperature control design provides faster cooling or heating. PID type controller helps to maintain a comfortable temperature at all times.



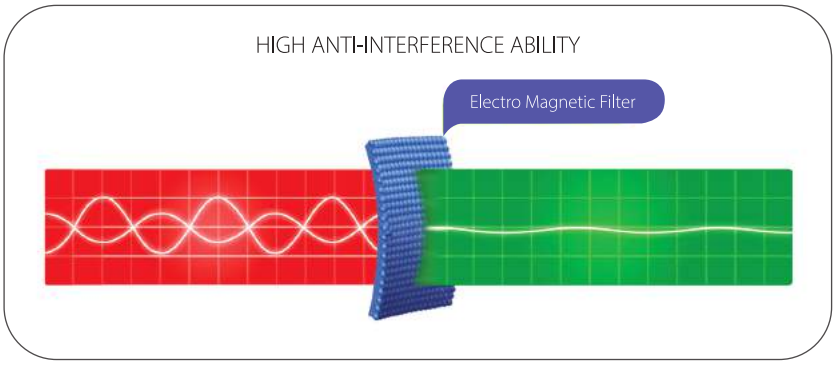
Efficient Heating

Defrost control in the heat mode is based on the outdoor ambient temperature. This improves efficiency of the system. In traditional units, with time based defrosting, efficiency of the system is lower.

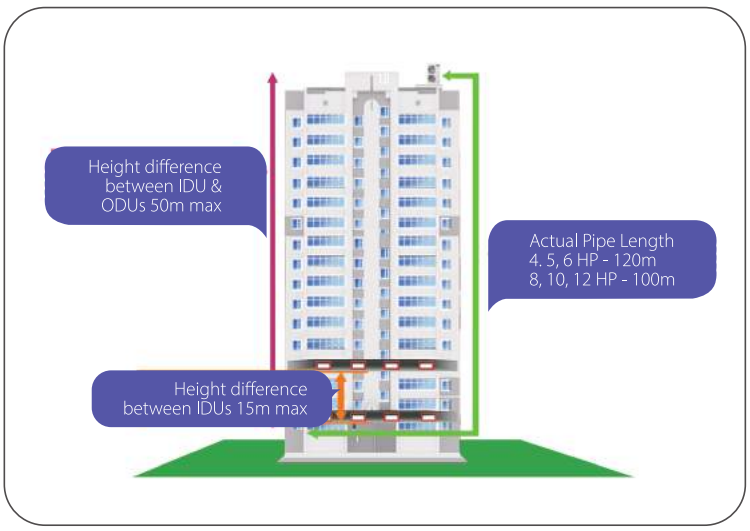


Low Electro Magnetic Interference

The controller is equipped with the latest CAN bus non-polar communication and high anti-interference ability. It results in no disturbance to electronic devices located near the unit.



Longer Refrigerant Piping



Longer refrigerant pipe length gives flexibility to locate outdoor units in remote locations, away from the indoor units.

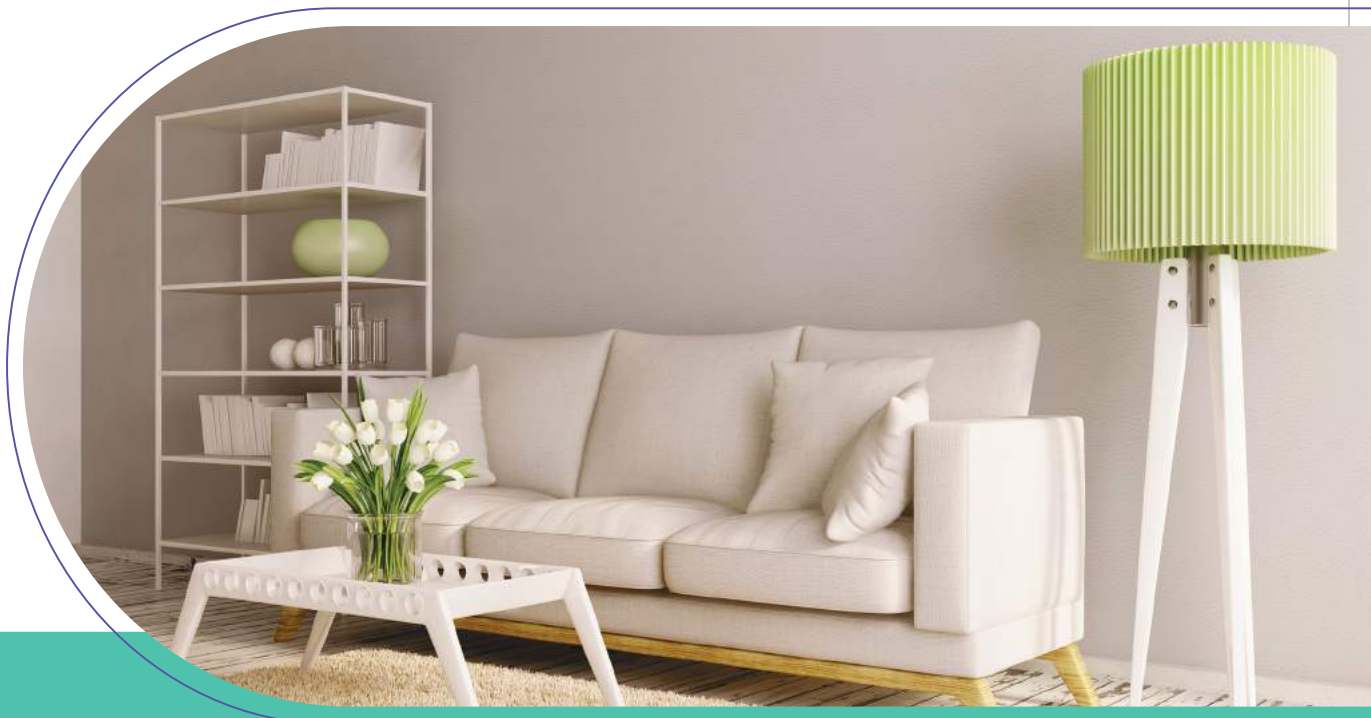
	4HP, 5HP, 6HP	8HP, 10HP, 12HP
Total Pipe Length	300 rmt	300 rmt
ODU to the farthest indoor unit	120 rmt	100 rmt

Compact Outdoor Units

Footprint of outdoor unit is low and weight is relatively lower.
Compactness of units results in convenient handling and installation.

CONVENTIONAL UNIT

VRF IV S UNIT



Features - Indoor Units

Hi-Wall Units

Balanced air flow design:
During the cool mode, air blows out horizontally and then gradually drops down.
During the heat mode, air blows downwards and then gradually climbs up.

Triple protective filters:
Mildew-proof filter, electrostatic fibre and anti-biotic fibre to remove dust, smell, bacteria and mildew.

In-built sensors:
To protect against freezing, temperature sensor malfunction and fan motor overload

In the heat mode, cold air will not be blown out unless the air is warm, ensuring comfort for the occupants.

Four-Way Cassettes

4-way airflow, 7 fan speeds, effective air circulation.

DC inverter motor with stepless speed control for low noise

Auto Quiet Mode also possible through wired remote

In-built drain pump with 1m lift, very flexible installation even with deep ceiling beams.

30% power saving possible with proper speed regulation

Many protective functions: in-built sensors to prevent water overflow and freezing, temperature sensor malfunction protection and fan motor overload protection.

Compact Cassettes

Suitable for grid ceiling

DC inverter motor with stepless speed control for low noise

Auto Quiet Mode also possible through wired remote

In-built drain pump with 1m lift, very flexible installation even with deep ceiling beams

One-Way Cassettes

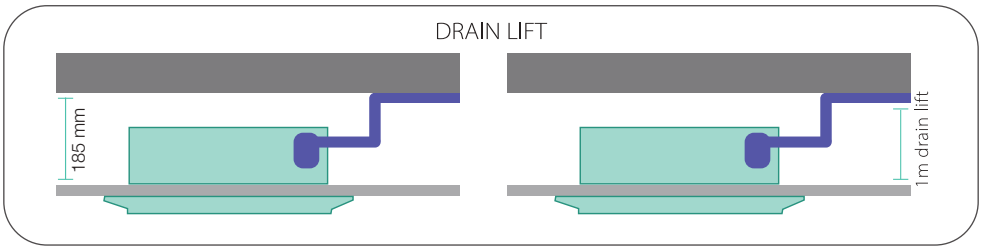
178 mm ultra-thin design

Detachable grille for easy cleaning

Durable filter with 2 times longer cleaning cycle

In-built drain pump with 1m lift, flexible installation even with deep ceiling beams.

Many protective functions: in-built sensors to prevent water overflow and freezing, temperature sensor malfunction protection and fan motor overload protection.



Two-Way Cassettes

Elegant front panel, good aesthetics.

In-built drain pump with 1m lift gives flexibility of installation even with deep ceiling beams

Two-way airflow suitable for lengthy spaces

Many protective functions: in-built sensors to prevent water overflow and freezing, temperature sensor malfunction protection and fan motor overload protection.

Floor-cum-Ceiling Mounted Units

Flexible to install on floor or ceiling

Elegant-looking exposed unit

Many protective functions: in-built sensors to prevent water overflow and freezing temperature sensor malfunction protection and fan motor overload protection.

Wider air swing range: horizontal and vertical air swing

Verticool Units

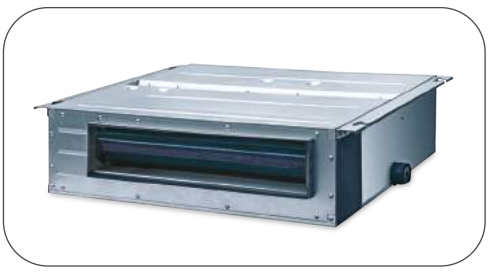
Ideally suited for large open halls and places where ceiling or wall space is at a premium

Very suitable for apartments, hotels, receptions, etc.

In-built auto-clean function

Powerful air-throw to reach the farthest corners of the hall

Slim Ductable Units



Special compact design – Only 200mm height and 450mm depth. Saves ceiling space.

Efficient BLDC motor resulting in power saving as high as 30% compared to conventional motors

Many protective functions: in-built sensors to prevent water overflow and freezing, temperature sensor malfunction protection and fan motor overload protection.

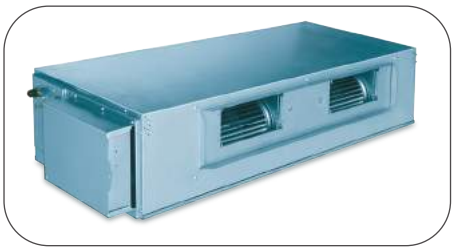
Wire connection possible from both sides of the unit thus improving flexibility of installation

High-efficiency centrifugal fan with ultra-low noise

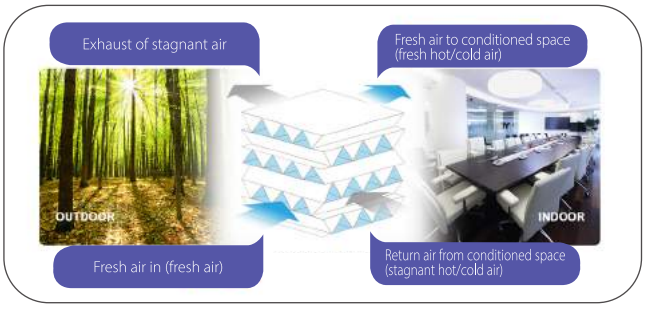
Quiet electronic expansion valve

Other Ductable Units

Ductable units are available with high static and low static design.



Heat Recovery Ventilator



Heat recovery ventilation system provides pre-cooled and filtered fresh air. Fresh air taken from outside is cooled by the return air and supplied to the conditioned space. This system uses a high efficiency plate type heat exchanger. With the help of HRV, fresh air load is reduced which results in power saving. There are seven models available from 350 CMH to 3000 CMH.

Wireless Remote Controller:

7 fan speed settings

Auto, cooling, dehumidifying, fan and heating operation modes.

Functions: child lock, drying, health, ventilation, turbo, sleep, light, absence, I-feel and timer.

Clock display and indoor/outdoor ambient temperature viewing functions

Swing function: Up and down / left & right

Wired Remote Controller:

LCD with black background and white letters

Timer setting for ON/OFF: 24 hours

7 levels of fan speed, up/down swing and left/right swing.

Auto, cooling, dehumidifying, fan and heat modes.

Group control of several IDUs with master and slave wired controller setting

Functions: sleep, ventilation, quiet/auto quiet, light, energy saving, drying, memory, filter cleaning reminder etc.

Ambient temperature display

Wired Remote Controller (for hotel applications)

Simplified functions, mechanical buttons and backlit LCD display

Auto, cooling, dehumidifying, fan and heat modes.

Group control of several IDUs with master and slave setting

Ambient temperature display

7 levels of fan speed, up/down swing.

Door control system can be connected

Smart Zone Controller:

Up to 32 indoor units can be centrally controlled

High resolution color display and touch screen control

Elegant and wall mounted

Remote shielding function

Scheduling of units

Central Controller:

- 7" capacitive touch screen with high resolution (1280 x 800) colour LCD
- Up to 128 units can be centrally controlled
- Project setting, parameter viewing, error history and access management functions.
- Schedule management
- Remote shielding function
- Mode, temperature, fan speed, quiet, swing control of any indoor unit.
- Personalised setting of parameters for each indoor unit with name
- Elegant looks with only 11 mm projection

BMS Compatibility

BMS compatibility enabled using MODBUS gateways.

Real time monitoring of unit operation status like ON/OFF, mode, temperature.

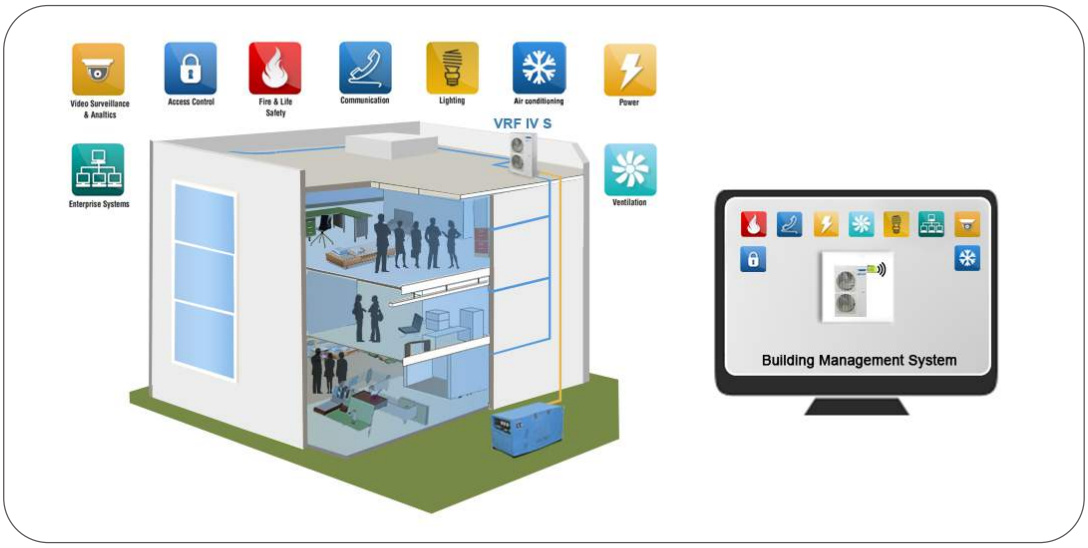
Real time control of units: ON/OFF, mode setting, temperature setting.

Monitoring unit errors

Each Modbus gateway can support 16 outdoor units and 128 indoor units

Non-polar CAN, RS485 communication ports with no electromagnetic interference.

Option of converting to other protocols like Bacnet, Lonworks, etc.



Technical Specifications

Outdoor units

Description		Units	IVRF-04S	IVRF-05S	IVRF-06S	IVRF-08S	IVRF-10S	IVRF-12S
Capacity		**HP**	**4**	**5**	**6**	**8**	**10**	**12**
	Cooling	kW	12.10	14.00	16.00	22.4	28	33.5
	Heating	kW	14.00	16.50	18.50	24	30	35
Operating Ambient Temperature Range								
Cooling Mode		°C	-5~52	-5~52	-5~52	-5~52	-5~52	-5~52
Heating Mode		°C	-20~27	-20~27	-20~27	-20~27	-20~27	-20~27
Power Supply			220-240v, Single phase, 50 Hz AC			380-420 Volts, 3 phase, 50 Hz AC		
Refrigerant			R410A					
Ref. Precharge Quantity		kg	5.0	5.0	5.0	5.5	7.1	8
Overall Dimensions								
Width		mm	900	900	900	940	940	940
Depth		mm	340	340	340	320	460	460
Height		mm	1345	1345	1345	1430	1615	1615
Net Weight		kg	110.0	110.0	110.0	133	166	177
Sound Pressure Level*		dB(A)	55	56	58	58	59	60
Compressor Type			Inverter Rotary	Inverter Rotary	Inverter Rotary	Inverter Rotary	Inverter Scroll	Inverter Scroll
No. of Compressors		No.	1	1	1	1	1	1
Ref. Pipe Connections-Dia.								
Liquid		mm/in	9.5/3/8	9.5/3/8	9.5/3/8	9.5/3/8	9.5/3/8	12.7/ 1/2
Gas		mm/in	15.9/ 5/8	15.9/ 5/8	19.05/ 3/4	19.05/ 3/4	22.2/ 7/8	25.4 / 1
Air-Cooled Condenser								
Type			Tube and Fin					
Fan Type			Axial-flow					
No. of Fans		No.	2	2	2	2	2	2
Air Quantity		CFM	3530	3710	3890	4710	6475	6475
Max. no. of IDUs		No.	7	8	9	13	17	20
Circuit Breaker Size		A	32	32	40	20	25	32

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Hi-Wall Units

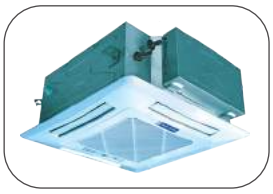
Description		Unit	IHW-08S	IHW-10S	IHW-12S	IHW-16S	IHW-19S	IHW-22S	IHW-24S
Capacity	Cooling	**TR**	**0.6**	**0.8**	**1**	**1.3**	**1.6**	**1.8**	**2**
		kW	2.20	2.80	3.60	4.50	5.60	6.30	7.10
	Heating	kW	2.50	3.20	4.00	5.00	6.30	7.00	7.50
Power Supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC						
Motor Power Input		W	50	50	60	60	70	70	70
Air Flow		CMH	500	500	630	630	750	750	750
		CFM	294	294	371	371	441	441	441
Sound Pressure Level*		dB(A)	38/34	38/34	44/38	44/38	44/38	44/38	44/38
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	9.5	9.5	12.7	12.7	15.9	15.9	15.9
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	6.35	9.5	9.5	9.5
	Type of Field Connection	Flared Connection							
Drain pipe	Outer Dia.	mm	20	20	20	20	20	20	20
Dimension	Width	mm	843	843	940	940	1008	1008	1008
	Depth	mm	180	180	200	200	221	221	221
	Height	mm	275	275	298	298	319	319	319
Net Weight	Body	kg	10.0	10.0	12.5	12.5	15.0	15.0	15.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Four-Way Cassettes

Description		Unit	ILC-12S	ILC-16S	ILC-18S	ILC-22S	ILC-24S	ILC-27S	ILC-31S	ILC-38S	ILC-43S	ILC-48S	ILC-60S
Capacity		**TR**	**1**	**1.3**	**1.5**	**1.8**	**2**	**2.3**	**2.6**	**3.2**	**3.6**	**4**	**5**
	Cooling	kW	3.60	4.5	5.00	6.30	7.10	8.00	9.00	11.20	12.50	14.00	16.00
	Heating	kW	4.00	5.00	5.60	7.10	8.00	9.00	10.00	12.50	14.00	16.00	17.50
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC										
Motor Power Input		W	48	48	50	59	68	68	98	110	110	110	130
Air Flow		CMH	750	750	830	1000	1180	1180	1500	1700	1860	1860	2100
		CFM	441	441	490	590	695	695	880	1000	1095	1095	1235
Sound Pressure Level*		dB(A)	36	36	36	37	38	38	40	41	43	43	47/42
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	12.7	12.7	12.7	15.9	15.9	15.9	15.9	15.9	15.9	15.9	19.05
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	Type of Field Connection	Flared											
Drain pipe	Outer Dia.	mm	25	25	25	25	25	25	25	25	25	25	25
Dimension-Body	Width	mm	840	840	840	840	840	840	840	840	840	840	910
	Depth	mm	840	840	840	840	840	840	840	840	840	840	910
	Height	mm	190	190	190	240	240	240	320	320	320	320	293
Dimension-Panel	Width	mm	950	950	950	950	950	950	950	950	950	950	1040
	Depth	mm	950	950	950	950	950	950	950	950	950	950	1040
	Height	mm	65	65	65	65	65	65	65	65	65	65	65
Net Weight	Body	kg	22.5	22.5	22.5	26.5	26.5	26.5	32.5	32.5	32.5	32.5	46.5
	Panel	kg	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement



Compact Cassettes

			ICC-08S	ICC-10S	ICC-12S	ICC-16S	ICC-18S	IC
Capacity		TR	0.6	0.8	1	1.3	1.5	1.6
	Cooling	kW	2.20	2.80	3.60	4.50	5.00	5.60
	Heating	kW	2.50	3.20	4.00	5.00	5.60	6.30
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC					
Motor Power Input		W	35	35	35	45	45	45
Air Flow		CMH	600	600	600	700	700	700
		CFM	355	355	355	410	410	410
Sound Pressure		dB(A)	41	41	41	45	45	45
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	9.5	9.5	12.7	12.7	12.7	16.9
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	6.35	6.35	9.5
	Type of Field Connection	Flared Connection						
Drain pipe	Outer Dia.	mm	25	25	25	25	25	25
Dimension-Body	Width	mm	596	596	596	596	596	596
	Depth	mm	596	596	596	596	596	596
	Height	mm	240	240	240	240	240	240
Dimension-Panel	Width	mm	670	670	670	670	670	670
	Depth	mm	670	670	670	670	670	670
	Height	mm	50	50	50	50	50	50
Net Weight	Body	kg	20.5	20.5	20.5	20.5	20.5	20.5
	Panel	kg	3.5	3.5	3.5	3.5	3.5	3.5

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

One-Way Cassettes

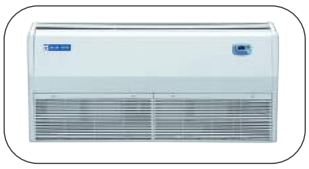
Indoor unit							
Description		Unit	I0C-08S	IOC-10S	IOC-12S	IOC-16S	IOC-18S
Capacity		TR	0.6	0.8	1	1.3	1.5
	Cooling	kW	2.20	2.80	3.60	4.50	5.00
	Heating	kW	2.50	3.20	4.00	5.00	5.60
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC				
Motor Power Input		W	30	30	30	30	30
Air Flow		CMH	600	600	600	830	830
		CFM	355	355	355	490	490
Sound Pressure Level*		dB(A)	36/28	36/28	36/28	40/32	40/32
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	9.5	9.5	12.7	12.7	12.7
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	6.35	6.35
	Type of Field Connection	Flared Connection					
Drain pipe	Outer Dia.	mm	25	25	25	25	25
Dimension-Body	Width	mm	987	987	987	987	987
	Depth	mm	385	385	385	385	385
	Height	mm	178	178	178	178	178
Dimension-Panel	Width	mm	1200	1200	1200	1200	1200
	Depth	mm	460	460	460	460	460
	Height	mm	55	55	55	55	55
Net Weight	Body	kg	20.0	20.0	20.0	21.0	21.0
	Panel	kg	4.2	4.2	4.2	4.2	4.2

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Two-Way Cassettes

Description		Unit	ITC-10S	ITC-12S	ITC-16S	ITC-18S	ITC-19S	ITC-22S	ITC-24S
Capacity		**TR**	**0.8**	**1**	**1.3**	**1.5**	**1.6**	**1.8**	**2**
	Cooling	kW	2.80	3.60	4.50	5.00	5.60	6.3	7.10
	Heating	kW	3.20	4.00	5.00	5.60	6.30	7.10	8.00
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC						
Motor Power Input		W	55	55	55	55	103	103	103
Air Flow		CMH	830	830	830	830	1100	1100	1100
		CFM	490	490	490	490	650	650	650
Sound Pressure Level*		dB(A)	35	35	35	35	39	39	39
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	9.5	12.7	12.7	12.7	15.9	15.9	15.9
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	6.35	9.5	9.5	9.5
	Type of Field Connection	Flared Connection							
Drain pipe	Outer Dia.	mm	25	25	25	25	25	25	25
Dimension-Body	Width	mm	1200	1200	1200	1200	1200	1200	1200
	Depth	mm	520	520	520	520	520	520	520
	Height	mm	340	340	340	340	340	340	340
Dimension-Panel	Width	mm	1443	1443	1443	1443	1443	1443	1443
	Depth	mm	630	630	630	630	630	630	630
	Height	mm	33	33	33	33	33	33	33
Net Weight	Body	kg	43.0	43.0	43.0	43.0	46.0	46.0	46.0
	Panel	kg	7.0	7.0	7.0	7.0	7.0	7.0	7.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement



Floor cum ceiling mounted units

Description		Unit	IFC-18S	IFC-24S	IFC-31S	IFC-38S	IFC-48S
Capacity		**TR**	**1.5**	**2**	**2.6**	**3.2**	**4**
	Cooling	kW	5.00	7.10	9.00	11.20	14.00
	Heating	kW	5.60	8.00	10.00	12.50	16.00
Power supply		V/Ph/Hz					
Air Flow		CMH	950	1400	1600	2000	2000
		CFM	559	824	942	1177	1177
External Static Pressure		Pa	0	0	0	0	0
Sound Pressure Level		dB(A)	42/38/33	44/42/39	50/46/43	51/46/42	52/49/45
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	12.7	15.9	15.9	15.9	15.9
	Liquid Pipe Dia.	mm	6.35	9.5	9.5	9.5	9.5
	Type of Field Connection	Flared					
Drain pipe	Outer Dia.	mm	17	17	17	17	17
Dimension	Width	mm	1220	1420	1420	1700	1700
	Depth	mm	700	700	700	700	700
	Height	mm	225	245	245	245	245
Net Weight	Body	kg	40.0	50.0	50.0	60.0	60.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Verticool Units

Description		Unit	IFS-34S	IFS-48S
Capacity		TR	2.8	4
	Cooling	kW	10.00	14.00
	Heating	kW	11.00	15.00
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC	
Motor Power Input		W	200	200
Air Flow		CMH	1850	1850
		CFM	1089	1089
Sound Pressure Level*		dB(A)	50/48/46	50/48/46
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	15.9	15.9
	Liquid Pipe Dia.	mm	9.5	9.5
	Type of Field Connection	Flared Connection		
Drain Pipe	Outer Dia.	mm	31	31
Dimension	Width	mm	1870	1870
	Depth	mm	580	580
	Height	mm	400	400
Net Weight	Body	kg	54.0	57.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

High static pressure ductable IDUs

Description		Unit	ISD-19S	ISD-24S	ISD-27S	ISD-34S	ISD-38S	ISD-43S	ISD-48S	ISD-60S	ISD-78S	ISD-96S
Capacity		**TR**	**1.6**	**2**	**2.3**	**2.8**	**3.2**	**3.6**	**4**	**5**	**6.5**	**8**
	Cooling	kW	5.60	7.10	8.00	10.00	11.20	12.50	14.00	16.00	22.40	28.00
	Heating	kW	6.30	8.00	9.00	11.20	12.50	14.00	16.00	17.00	25.00	31.00
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC									
Air Flow		CMH	1000	1100	1100	1700	1700	2000	2000	3100	4000	4400
		CFM	590	650	650	1000	1000	1175	1175	1824	2355	2590
External Static Pressure		Pa	70/0~100	70/0~100	70/0~100	70/0~100	70/0~100	70/0~100	70/0~100	70/0~150	150/0~200	150/0~ 200
Sound Pressure Level*		dB(A)	44/36	45/37	45/37	46/42	46/42	48/42	48/44	50/48/46	54/ /	55/ /
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	15.9	15.9	15.9	15.9	15.9	15.9	15.9	19.05	19.05	22.22
	Liquid Pipe Dia.	mm	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	Type of Field Connection		Flared Connection								flaring Connection (Liquid pipe) / Brazing Connection<Gas Pipe>	flaring Connection (Liquid pipe) / Brazing Connection<Gas Pipe>
Drain Pipe	Outer Dia.	mm	25	25	25	25	25	25	25	25	30	30
Drain Pump			In-built								NA	
Dimension	W	mm	1271	1271	1271	1229	1229	1229	1229	1340	1483	1686
	D	mm	558	558	558	775	775	775	775	750	791	870
	H	mm	268	268	268	290	290	290	290	350	385	450
Net Weight	Body	kg	35.0	35.0	35.0	47.0	47.0	47.0	47.0	60.0	82.0	105.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Low Static Pressure Ductable IDUs

			ICS-10S	ICS-12S	ICS-15S	ICS-18S	ICS-19S	ICS-22S	ICS-24S	ICS-27S	ICS-31S	ICS-38S	ICS-48S
Capacity		TR	0.8	1	1.3	1.5	1.6	1.8	2	2.3	2.6	3.2	4
	Cooling	kW	2.80	3.60	4.50	5.00	5.60	6.30	7.10	8.00	9.00	11.20	14.00
	Heating	kW	3.20	4.00	5.00	5.60	6.30	7.10	8.00	9.00	10.00	12.50	16.00
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC										
Air Flow		CMH	450	550	700	700	1000	1000	1000	1100	1500	1700	2000
		CFM	265	325	410	410	590	590	590	650	885	1000	1175
External Static Pressure		Pa	10/30	10/30	10/30	10/30	10/30	10/30	20/50	20/50	50/20	50/20	50/20
Sound Pressure Level*		dB(A)	31/25	32/27	33/28	33/28	35/30	35/30	35/30	36/31	40/32	40/32	42/37
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	9.5	12.7	12.7	12.7	15.9	15.9	15.9	15.9	15.9	15.9	15.9
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	6.35	9.5	9.5	9.5	9.5	9.5	9.5	9.5
	Type of Field Connection		Flared										
Drain Pipe	Outer Dia.	mm	25	25	25	25	25	25	25	25	25	25	25
Dimension	W	mm	700	700	900	900	1100	1100	1200	1200	1340	1340	1340
	D	mm	615	615	615	615	615	615	655	655	655	655	655
	H	mm	200	200	200	200	200	200	260	260	260	260	260
Net Weight	Body	kg	22.0	22.0	27.0	27.0	31.0	31.0	40.0	40.0	46.0	46.0	47.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Slim Ductable IDUs

Description	Units		ISLD-08S	ISLD-10S	ISLD-12S	ISLD-16S	ISLD-19S	ISLD-27S	ISLD-24S
Capacity		TR	0.6	0.8	1	1.3	1.6	1.8	2
	Cooling	kW	2.20	2.80	3.60	4.50	5.60	6.30	7.20
	Heating	kW	2.50	3.20	4.00	5.00	6.30	7.00	8.00
Power supply		V/Ph/Hz	220-240V, 1 Phase, 50 Hz AC						
Air Flow		CMH	450	450	550	750	850	850	1100
		CFM	265	265	324	441	500	500	647
External Static Pressure		Pa	0/15	0/15	0/15	0/15	0/15	0/15	0/15
Sound Pressure Level*		dB(A)	30/22	30/22	31/25	33/27	35/29	35/29	37/30
Refrigerant Piping Dia.	Gas Pipe Dia.	mm	9.5	9.5	12.7	12.7	15.9	15.9	15.9
	Liquid Pipe Dia.	mm	6.35	6.35	6.35	6.35	9.5	9.5	9.5
	Type of Field Connection		Flared						
Drain Pipe	Outer Dia.	mm	25	25	25	25	25	25	25
Dimension	W	mm	710	710	710	1010	1010	1010	1310
	D	mm	450	450	450	450	450	450	450
	H	mm	200	200	200	200	200	200	200
	H	mm	200	200	200	200	200	200	200
Net Weight	Body	kg	18.5	18.5	19.5	23.5	24.5	24.5	30.5

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement

Heat Recovery Ventilation Systems

Model			IHRV-03S	IHRV-05S	IHRV-08S	IHRV-10S	IHRV-15S	IHRV-20S	IHRV-30S
Air Flow volume	H/M/L	M3/h	350	500	800	1000	1500	2000	3000
ESP	H/M/L	Pa	100	100	110	110	150	150	220
Temperature exchange efficiency	H/M/L	%	71.00	68.00	70.00	73.00	73.00	71.00	70.00
Enthalpy exchange efficiency (H/M/L)	Heating	%	65.00	62.00	63.00	66.00	65.00	62.00	62.00
	Cooling	%	61.00	57.00	60.00	62.00	60.00	58.00	58.00
Po wer supply		Ph/V/Hz	1/220/50	1/220/50	1/220/50	1/220/50	3/380/50	3/380/50	3/380/50
Po wer input		KW	0.165	0.262	0.40	0.44	0.80	0.95	2.80
Sound Pressur Level		Db(A)	37	39	45	46	48	50	54
Dimension (W 'D'H)	Outline	mm	800*879*306	800*879*306	832*1016*380	832*1016*380	1210*1215*452	1210*1215*452	1340*1550*572
	Package	mm	1050*1165*315	1050*1165*315	1087*1320*400	1087*1320*400	1540*1550*470	1540*1550*470	1610*1710*700
Net weight		k g	45.0	45.0	57.0	57.0	110.0	110.0	215.0

* Sound level data is based on the measurements taken in an unechoic chamber and actual sound levels may vary depending on the environmental noise conditions.
Specifications are subject to change due to continuous product improvement