



THE NEW
REFERENCE FOR
'SLEEK'
AND
'SAVINGS'.

VRF V/S
100% INVERTER

Blue Star is India's leading HVAC solution provider with more than 75 years of experience in the industry. The Company is always committed to launching products that are perfectly suited to the tropical conditions prevailing in India.

Apart from its wide range of products and solutions, Blue Star is also committed to providing world-class service and after-sales support to its customers through its service network across the length and breadth of the country. The new VRF V S is a Side Discharge VRF System with many distinguishing features relevant for use in India.

The VRF V S, developed, tested and validated in Blue Star's NABL-accredited R&D lab, and manufactured at the company's state-of-the-art manufacturing facility in Dadra, is sleek, compact, powerful and efficient.

What's more, the VRF V S comes with a range of indoor units suitable for a variety of needs and with many control options.



CUTTING EDGE R&D

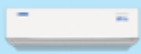



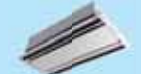





Blue Star's innovations are created at the company's high-end R&D facilities that have been established over many decades by the brightest minds, using the latest equipment including many advanced engineering design software tools.


The Company's R&D facility is also equipped with the most advanced Psychrometric Test Lab. This Laboratory at Dadra has been certified to be in accordance with the Standard ISO/IEC 17025:2017 "General Requirements for the Competence of Testing & Calibration Laboratories" by The National Accreditation Board for Testing and Calibration Laboratories (NABL).




The scope of this accreditation includes many international and Indian standards like EN, AHRI, UAE, S, SASO, GSO, etc.

Indoor Units Line-Up

Appearance	Type	0.6TR	0.8TR	1TR	1.3TR	1.5TR	1.6TR	1.7TR	2TR	2.3TR	2.5TR	2.8TR	3TR	3.2TR	4TR	5TR	6TR	8TR	10TR
	Hi-Wall Units		●	●	●	●		●	●		●	●							
	Four-Way Cassettes			●	●	●		●	●	●		●		●	●	●			
	Compact Cassettes	●	●	●	●	●													
	One-Way Cassettes	●	●	●	●		●		●										
	Two-Way Cassettes	●	●	●	●	●		●	●										
	Floor Cum Ceiling Mounted Units					●			●				●		●	●			
	Verticools								●	●		●		●	●				
	Concealed Splits		●	●	●	●			●										
	Ductable IDUs					●			●		●		●		●	●	●	●	
	Floor Mounted Packaged Units															●		●	●

	Treated Fresh Air Units	3.5 TR	5.5 TR	6.8 TR
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	AHU Kits	3 TR	5 TR	6.5 TR	8 TR	10 TR	12.5 TR	15 TR
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COMPACT DESIGN

The VRF V S outdoor unit is extremely sleek and compact. Its light-weight design makes it suitable for mounting on the wall or in the balcony, which saves floor space.

In certain applications like residential complexes, a large number of outdoor units need to be mounted. These units can be fitted in the available balcony space of each apartment which allows the occupants to have their own independent unit within their premises for better control and service access.

Since many indoor units can be connected to a single outdoor unit, the number of exposed outdoor units is reduced, resulting in better exterior aesthetics.



UNIQUE FEATURES

Efficient DC Inverter Compressors

The VRF V S system is equipped with a specially designed inverter compressor and an intelligent control drive which assures:



Temperature control with $+ 0.5^{\circ}\text{C}$ or $- 0.5^{\circ}\text{C}$ accuracy to ensure uncompromised comfort



Better internal oil lubrication resulting in reliable operation



Very low starting current, hence lower capacity generator is sufficient, which saves the cost on power back-up system



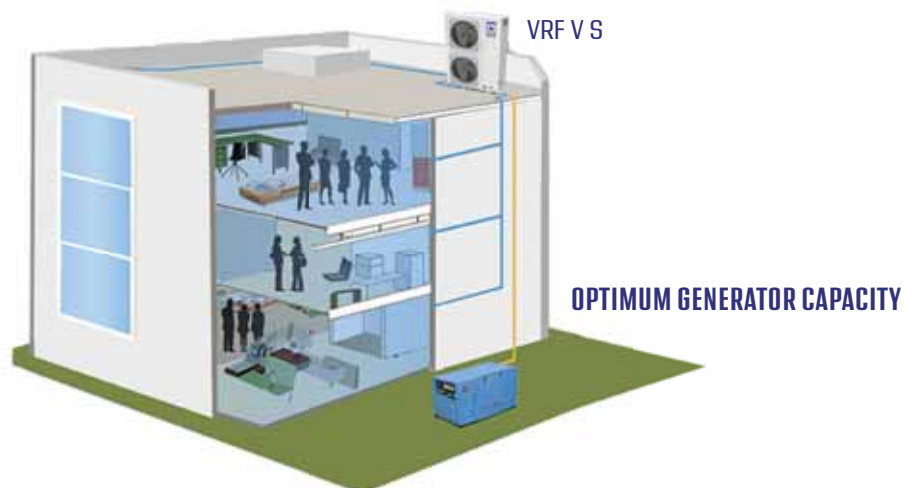
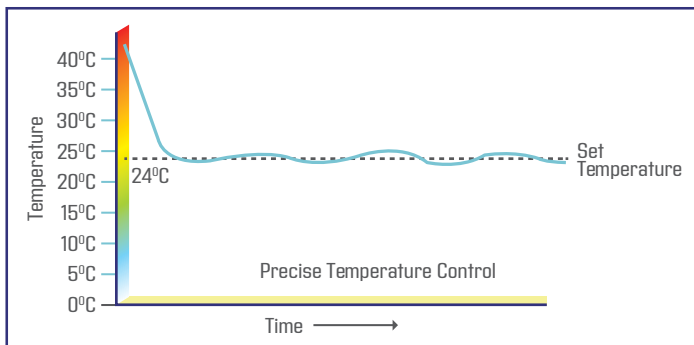
Part load operation maximum efficiency



A specially designed motor with a permanent rare earth magnet and concentrated winding which increases the efficiency of the compressor by 7%



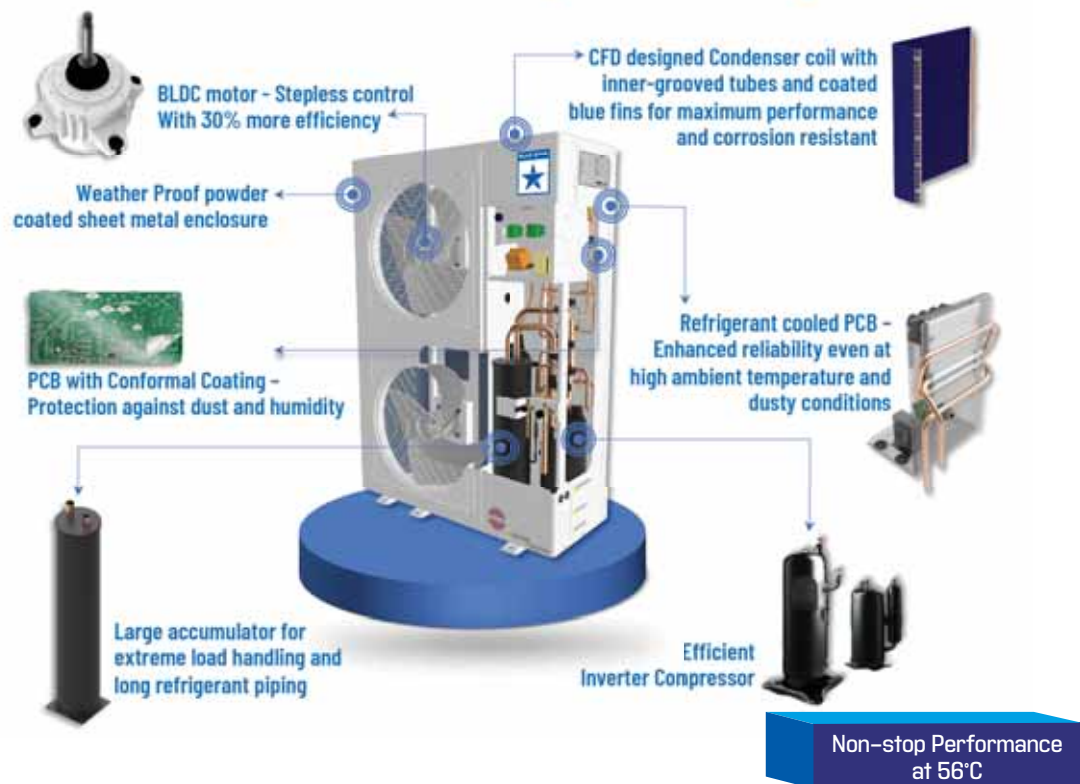
Quieter operation



Unique Design

- CFD analysis ensures that the outdoor units are designed for maximum airflow with minimum pressure drop
- Condenser coil made of helical inner-grooved copper tubes for maximum heat transfer efficiency
- Aluminium-coated fins for corrosion resistance
- Refrigerant-cooled heat sink ensures reliable operation even at ambient temperatures as high as 56°C
- Weather-proof design comes with powder-coated sheet metal enclosure
- Special BLDC type fan motor is 30% more efficient than conventional motors and gives flexible capacity control with a unique fan speed control design logic
- Conformal Coating for PCBs: All the PCBs are coated with a special acrylic-based polymer film that adheres to the norms of circuit board topology and protects PCBs from the harmful effects of moisture, heat, fungus, chemicals and dust

Enhanced Reliability with Blue Star's Unique Design



With the above special design considerations, Blue Star's VRF V S System can work non-stop even at 56°C, and is well-suited for Indian tropical conditions.

Efficiency with Flexibility

The efficiently engineered VRF V S system gives a full load COP as high as 3.8. This leads to huge power-saving while offering you utmost comfort.

The VRF V S system is well-suited for part load operation, which allows great functionality even with only a few units connected and running while other units are switched off.

The overall efficiency of the system increases during part loads, thanks to special inverter compressors and other unique controls. The system is ideal for applications like residences wherein part load operations are common.



Demand Control Mode for Economy Operation

By enabling the Demand Control mode, the capacity of the unit can be set at 25%, 50%, 75%, or 100% as per the requirement. This will enable optimal utilisation of air conditioning capacity to match the required demand in load, which in turn can result in enormous power savings with higher overall efficiency.

Setting higher inside-temperatures will reduce the power consumption considerably. This scenario will be very common in applications where higher inside-temperatures are preferred by the occupants.

Optimal selection of backup power generator for running the air conditioning system. The generator power need not be at full capacity if the air conditioners are required to operate only in a few important areas during a power failure.

During low ambient temperature conditions, a lower air conditioning capacity will be sufficient to cool the space.



Quiet Mode

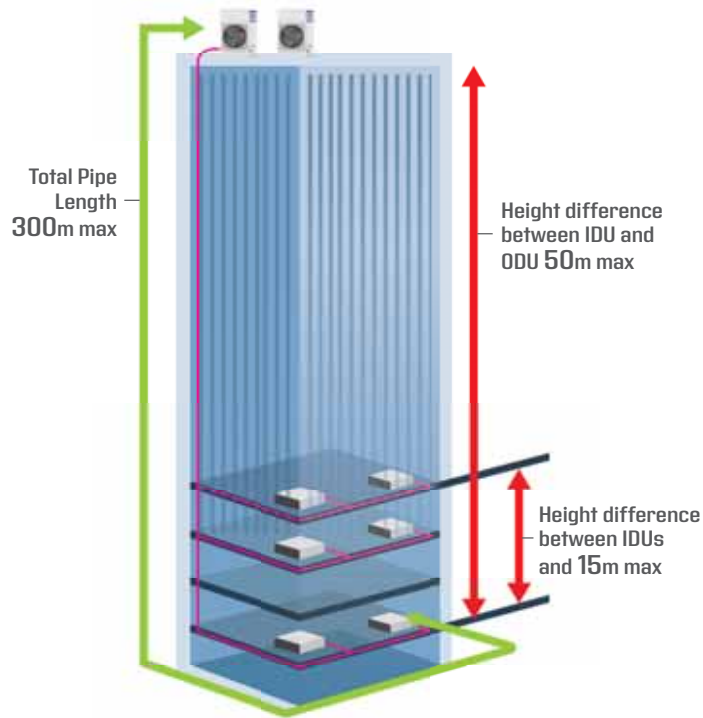
Quiet mode is a unique feature which will ensure silent operation of the units. This feature is especially useful for night time operation in residences or when the outdoor units are located close to occupied areas.

In this mode, both the compressor and condenser fan housed in the outdoor unit operate at a lower optimal speed, thereby reducing operating noise.

The start time and end time of this feature can be set to suit the required time of the operation.

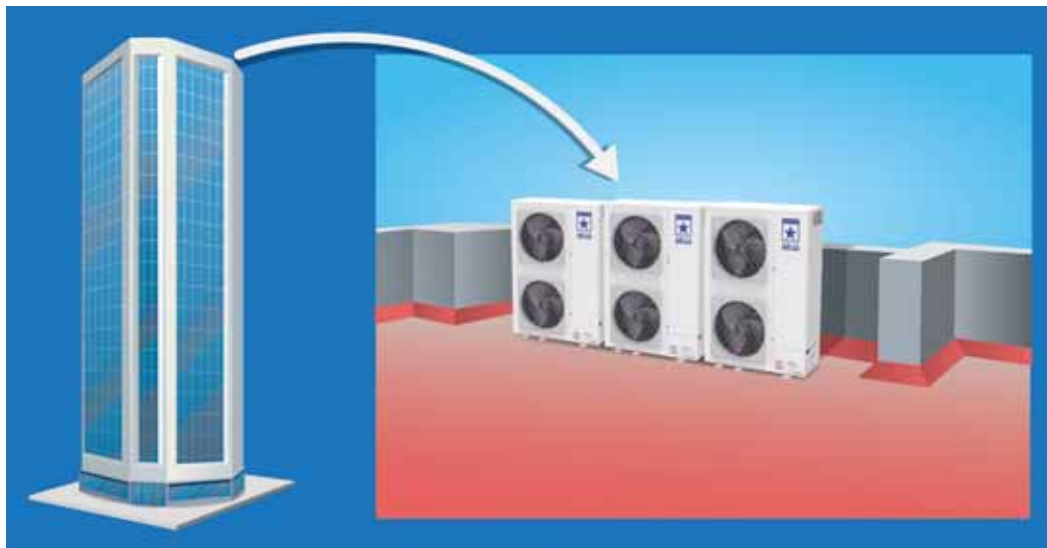


ENHANCED AESTHETICS WITH LONG REFRIGERANT PIPING



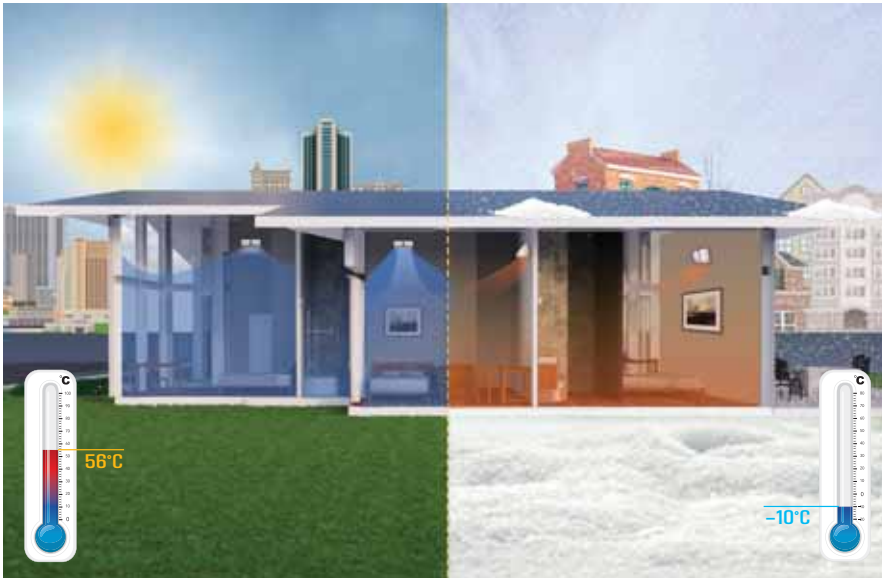
The VRF V S system is designed to support refrigerant pipe lengths running as long as 300 metres. This helps situate the outdoor unit away from the conditioned space, a feature that can vastly improve the aesthetics of any building.

The height difference between outdoor and indoor units can be as high as 50 metres, making the VRF V S system suitable for high-rise buildings too.



Heat Pump Option

The VRF V S system is also available with a heat pump option. While the cooling mode takes care of the summer requirements, the heating mode which uses a heat pump unit takes care of the winter heating requirements, making this system an all-weather air conditioning companion, useful throughout the year.



VRF V S for Special Applications

AHUs can be integrated with the VRF V S outdoor units with the help of Blue Star's AHU control kits.

With the company's specially-designed AHU kit, customised AHUs can be connected to the outdoor units to suit various applications like pharmaceutical air conditioning requirements, operation theatres in hospitals and event halls, etc. which require non-standard cooling.

With the help of AHU kits, Blue Star's Side Discharge VRF V S System can be used for a variety of applications without any limitations. Along with AHUs, other conventional VRF indoor units can also be integrated with the system. This feature is unique to the company's VRF V S System.



AHU Kit

SOPHISTICATED CONTROLLERS

The VRF V S system comes with a versatile range of controller options including:

- Standalone wired and wireless remotes
- Group Controller for controlling a group of indoor units
- Wi-Fi-based Central Control System through Tab for controlling a large number of indoor units
- Computer-based control
- Web-based control from remote locations using a smart phone and an advanced mobile app
- Key Card and Motion Sensor
- BMS integration and home automation
- Tenant Billing System for multi-tenant premises

CONTROLLER LINE UP

BLUE STAR

Wifi based Central Controller

Group Controller

PC Monitoring System

Mobile App

Wired Controller

Keycard Controller

Cordless Remote Controller

Tenant Billing System

Data Concentrator

BMS Compatibility

HOME AUTOMATION

MOTION SENSOR

KEY SENSOR

Wi-Fi-based Central Control System

The Wi-Fi-based Centralised Control System enables the user to operate multiple indoor units from a central location with the help of a dedicated Android or IOS-based tab from anywhere in its Wi-Fi range within the conditioned space.

Up to 16 outdoor units with multiple indoor units can be controlled using this system. The Wi-Fi-based device is designed to be conveniently mounted on a wall or ceiling.

The outdoor unit(s) can be located remotely up to a maximum distance of 800 metres away, and connected through RS485 communication wire to the device that generates the Wi-Fi signal.



Home Automation System

The Blue Star Side Discharge VRF V S System can be integrated and operated with any of the home automation systems used in residences for other services like the lighting system and the home theatre system which have a special interface device. Air conditioners can be operated along with other devices through a common handheld tab.



KEY CARD AND MOTION SENSOR CONTROL

The VRF V S indoor units can be switched ON or OFF through a key card or motion sensor without disconnecting the power. This feature is very useful for applications in hotels, hospitals, hostel rooms and other places that use key card access to turn the indoor units on and off.

This feature is built into most of the indoor units.

The unit can also be integrated with motion sensors wherever required.



RANGE OF INDOOR UNITS TO ENHANCE INTERIOR AESTHETICS

HI-WALL UNITS



Efficiently Designed

8
MODELS

Available in 8 models starting from 0.8TR

Multiple fan speed options

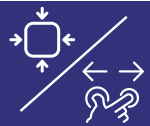
Flexible air flow pattern

Multilevel filtration

Technical Specifications:

Model No.		VHW-10B	VHW-12B	VHW-16B	VHW-18B	VHW-20B	VHW-24B	VHW-30	VHW-34
Cooling Capacity	TR	0.8	1.0	1.3	1.5	1.7	2.0	2.5	2.8
	kW	2.9	3.5	4.7	5.3	6	7	8.8	10
Heating Capacity	TR	0.9	1.1	1.5	1.7	1.9	2.2	2.8	3.1
	kW	3.2	3.9	5.2	5.8	6.6	7.7	10.0	10.9
Electrical Power Supply		230V, Single Phase, 50 Hz AC supply							
Air Flow (Hi/Med/Lo)	CFM	325/275/200	375/320/275	450/405/305	500/410/320	585/530/485	640/545/490	875/720/560	945/720/560
Sound Level	dB(A)	30	31	33	37	41	43	43	43
Fan Motor Input Power	W	30	30	30	30	50	50	105	105
Current	A	0.2	0.2	0.24	0.24	0.36	0.36	0.6	0.6
Filter Specification		Dust & Health Filters	Dust & Health Filters	Dust & Health Filters	Dust & Health Filters	Dust & Health Filters	Dust & Health Filters	Dust Filter	
Refrigerant Pipe Connections									
Liquid Pipe – Dia	mm	6.35	6.35	6.35	6.35	9.5	9.5	9.5	9.5
Gas Pipe – Dia	mm	9.5	9.5	12.7	12.7	15.9	15.9	15.9	15.9
Type of Pipe Connection		Flared							
Net Dimensions (WxHxD)	mm	845 x 300 x 193	845 x 300 x 193	960 x 320 x 215	960 x 320 x 215	1110 x 335 x 215	1110 x 335 x 215	1350X258X326	1350X258X326
Net Weight	kg	10	10	12	12	15	15	18.5	18.5

CASSETTES



Compact (600 X 600) and
Large (840 X 840) panel
options



BLDC motor



Wide-angle flow



Fresh air provision



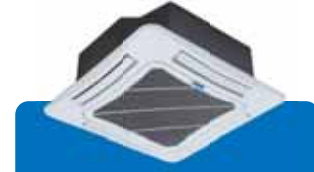
In built drain pump



Multi Mode function

Technical Specifications:

Large Cassettes



DESCRIPTION	UNITS	VLC-12	VLC-16	VLC-18	VLC-20	VLC-24	VLC-27	VLC-34	VLC-38	VLC-48	VLC-60 A	
Nominal Cooling Capacity	TR	1	1.3	1.5	1.7	2	2.3	2.8	3.2	4	5	
	kW	3.5	4.6	5.3	6	7	8.1	9.8	11.3	14.1	17.6	
Nominal Heating Capacity	TR	1.1	1.4	1.7	1.9	2.2	2.5	3.1	3.5	4.4	5.5	
	kW	3.9	5.0	5.8	6.6	7.7	8.9	10.8	12.4	15.5	19.3	
Electrical Power Supply	V/Ph/Hz	230 V, 1 Phase, 50 Hz ac										
Air Flow	CFM	470/415/355	470/415/355	490/445/385	650/560/475	695/590/530	695/590/530	945/825/710	1095/855/770	1095/855/770	1295/1120/915	
Sound Level	dB(A)	36	36	36	37	38	38	40	41	43	47	
Fan Motor Input Power	W	48	48	48	59	59	59	98	98	98	120	
Fan Motor Rated Current	A	0.4	0.4	0.4	0.5	0.5	0.5	0.8	0.8	0.8	0.6	
Refrigerant Pipe Connections												
Liquid	mm	Ø 6.5			Ø 9.5							
Gas	mm	Ø 12.7			Ø 15.9							Ø 19.1
Type of Connection		Flared										
Drainage Pipe Dia	mm	25										
Dimensions (WxDxH)	Indoor Unit	840 X 840 X 190			840 X 840 X 240			840 X 840 X 320			910 X 910 X 293	
	Grill	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	950 X 950 X 65	1040 X 1040 X 65	
Net Weight	Indoor Unit	22.5	22.5	22.5	26.5	26.5	26.5	32.5	32.5	32.5	44.5	
	Grill	7	7	7	7	7	7	7	7	7	8	






Compact Cassettes



DESCRIPTION	UNITS	VCC-08	VCC-010	VCC-12	VCC-16	VCC-18
Nominal Cooling Capacity	TR	0.6	0.8	1.0	1.3	1.5
	KW	2.1	2.9	3.5	4.7	5.3
Nominal Heating Capacity	TR	0.6	0.9	1.1	1.5	1.7
	KW	2.3	3.2	3.9	5.2	5.8
Electrical Power Supply		230Volts, Single Phase, 50Hz AC Supply				
Air Flow (Hi/Med/Lo)	CFM	385/325/265			412/385/355	
IDU Noise Level(Lo)	dB(A)	41			45	
Fan Motor Input Power	w	35				
Fan Motor Rated Current	A	0.4				
Refrigerant Pipe Connections						
Liquid	mm	Ø 6.5				
Gas	mm	Ø 12.7				
Type of Connection		Flared				
Drain Pipe Dia	mm	25				
Dimensions (WxDxH)	Indoor Unit	596x596x240	596x596x240	596x596x240	596x596x240	596x596x240
	Grill	670/670/50	670/670/50	670/670/50	670/670/50	670/670/50
Net Weight	Indoor Unit	20.5	20.5	20.5	20.5	20.5
	Grill	3.5	3.5	3.5	3.5	3.5

CONCEALED UNITS



	Powder-coated construction for longer life		Multiple speed options
	Service-friendly design		Ideal for residences, hotel rooms and hostels
	Quieter in operation		

Technical Specifications:



DESCRIPTION	UNITS	DCS-10	DCS-12	MVCS-16	DCS-18	DCS-24
Nominal Cooling Capacity	TR	0.8	1.0	1.3	1.5	2.0
	kW	2.9	3.5	4.7	5.3	7.0
Nominal Heating Capacity	TR	0.9	1.6	1.6	1.6	2.2
	kW	3.2	5.6	5.6	5.6	7.7
Electrical Power Supply	V/Ph/Hz	230 V, Single Phase, 50 Hz AC Supply				
Air Flow	CFM	350	350	450	500	650
External Static Pressure	Pa	10~20	10~20	20~25	20~25	25~30
Fan Motor Input Power	W	62	62	62	62	75
Fan Motor Rated Current	A	0.32	0.32	0.32	0.32	0.38
Sound Level	dB(A)	44	45	44	45	46
Refrigerant Pipe Connections						
Liquid	mm	Ø 6.35	Ø 6.35	Ø 6.35	Ø 6.35	Ø 9.50
	Inch	Ø 1/4	Ø 1/4	Ø 1/4	Ø 1/4	Ø 3/8
Gas	mm	Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7	Ø 15.9
	Inch	Ø 1/2	Ø 1/2	Ø 1/2	Ø 1/2	Ø 5/8
Type of Connection		Flared				
Drain Connection (OD)	Inch	Ø 3/4	Ø 3/4	Ø 3/4	Ø 3/4	Ø 3/4
	mm	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1
Dimensions (WxDxH)	mm	1090 X 520 X 266	1090 X 520 X 266	1090 X 520 X 266	1090 X 520 X 266	1090 X 520 X 266
Net Weight	Kg	33	33	35	35	35

Note: Other Indoor Units are available as mentioned in Indoor Units Line-up

OUTDOOR UNITS

Technical Specifications:



DESCRIPTION	UNIT	IVRFB-04SC/SH	IVRFB-05SC/SH	IVRFB-06SC/SH	IVRFB-08SC/SH	IVRFB-10SC/SH	IVRFB-12SC/SH	IVRFB-14SC/SH	IVRFB-16SC/SH
Capacity	HP	4	5	6	8	10	12	14	16
Nominal Cooling Capacity	TR	3.2	4	4.8	6.4	8	9.6	11.2	12.8
	kW	11.2	14.0	16.9	22.4	28.0	33.6	39.4	45.0
Nominal Heating Capacity-SH models	kW	12.4	15.5	18.6	24.8	31.0	37.0	43	49.5
Dimensions (WxDxH)	mm	900 x 350 x 1215	900 x 350 x 1215	900 x 350 x 1215	1020 x 420 x 1465	1020 x 420 x 1465	1020 x 420 x 1465	1320x420x1640	1320x420x1640
Net Weight- SC/SH	kg	95/97	101/103	111/114	153/156	163/166	176/180	232/238	235/240
Operating Temperature Range	Cooling Mode	10 deg.C to 56 deg. C							
	Heating Mode	-10 deg.C to 24 deg. C							
Electrical Power Supply		220-240/1PH/50Hz ±10%			380-415/3PH/50Hz ±10%				
Refrigerant		R410A							
Refrigerant Pre Charge Qty.	kg	3.3	3.7	4.2	5.7	7.9	8.2	9.5	9.8
Sound Pressure Level	dBA	57	57	58	59	60	60	61	61
Max. no. of IDUs	No.	7	9	10	14	17	21	24	28
Compressor	Quantity- No.	1	1	1	1	1	1	1	1
	Type	Hermetically Sealed Twin Rotary DC Inverter						Hermetically Sealed DC Inverter Scroll	
Type of Condenser		Tube Fin Type Air cooled							
Fan Type		Axial Flow Type							
No. of Fan		1	1	1	2	2	2	2	2
Air Quantity	CFM	4000	4000	4000	5500	6400	6400	7700	7700
Motor Type		Brushless DC							
Motor Quantity		1	1	1	2	2	2	2	2
Power Supply to Motor		230V, 50Hz, Single Phase							
Field Suction Pipe-OD	mm	Φ15.9	Φ15.9	Φ18.01	Φ22.2	Φ22.2	Φ28.6	Φ28.6	Φ28.6
Field Liquid Pipe-OD	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ12.7	Φ12.7	Φ12.7

Note:

- Nominal cooling capacities are based on the following conditions:
Indoor temperature: 27°CDB, 19°CWB; Outdoor temp.: 35°CDB, 25°CWB; Piping length: 10m, Height difference: 0m.
- Nominal heating capacities are based on the following conditions:
Indoor temperature: 20°CDB; Outdoor temp.: 7°CDB, 6°CWB; Piping length: 10m, Height difference: 0m.
- The values given in the table for noise levels are based on measurement taken in anechoic chamber and may vary as per the actual ambient noise conditions.
- Specifications are subject to change without prior notice due to continuous product improvement.

WIDE SERVICE NETWORK

Blue Star offers world-class 'Gold Standard' customer support across India, with over 25 office locations and more than 500 dealers to cover most Tier 1, 2 and 3 cities and towns, in order to swiftly cater to the service needs of customers during and after the warranty period.

Leveraging technology such as the use of dedicated applications, a 24x7 call centre to take service complaints, and an intranet communication that connects all of Blue Star's highly-trained service personnel, the service turnaround is speedy and precise, ensuring minimum downtime of critical equipment.

Additionally, the company's Genuine Spare Parts depots across the country are well-stocked with all parts, especially the in-demand ones, so that no repair needs to wait too long for the arrival of a part.





BLUE STAR

Authorized Dealer



Scan QR Code-Blue Star Customer
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