Invented for life

BOSCH

VRF Air Conditioning Systems

Product Catalogue

2024 Edition

Your powerful partner in the world of air conditioning: **Bosch**

Discover new opportunities: Bosch now offers not only heating, hot water and ventilation solutions, but also VRF (Variable Refrigerant Flow) systems for efficient air conditioning in commercial buildings. This opens up attractive prospects for you and provides greater benefits from Bosch expertise.

Efficiency from a single provider

Are you looking for an industrial boiler, a combined heat and power system or high-efficiency VRF air conditioning? Bosch has a lot of solutions to meet your precise needs.
Moreover, Bosch also creates customised package solutions with perfectly harmonised components and technology from one single provider. The potential benefits are: permanently low energy costs and protection of the environment.

The future: Made by Bosch

Bosch stands for highest quality products and services. Easy approval and smooth operation of large-scale systems are guaranteed by Bosch global organisation and production standards. A long tradition of innovation means a lot to us. You can benefit from the unique, pioneering spirit of Bosch engineering and technology. Advanced technology and the high quality of the new VRF system fulfil users' long-term expectations.

Looking to the future with Bosch

Bosch stands for highest quality products and services. Easy approval and smooth operation of large-scale systems are guaranteed by Bosch global organisation and production standards. Bosch solutions are inspired by a unique and pioneering spirit in engineering and technology as well as by the long tradition of innovation.The advanced technology and the high quality of our air conditioning systems consistently satisfies its users.

Table of Contents

Get a great deal with simple, latest generation technology

VRF Outdoor Units

Four key VRF outdoor unit models with capacities from 8 kW to 90 kW.
Bosch supplies four key models of VRF outdoor units with capacities from 8 kW to 90 kW in a single unit, to meet the exact requirements of each project. The AF5301A C as well as the AF6300A C series are cascadable. This results in an extended system capacity of 150 kW for AF6300A C and 270 kW for AF5301A C.

Air Flux – AF4300A Mini	Air Flux – AF4300A Compact	Air Flux – AF5301A
8 to 18 kW	25 to 62 kW	25 to 90 kW
		

Single unit

Air Flux – AF5301A C	Air Flux – AF6300A C
25 to 90 kW	22 to 50 kW
	

Cascadable

	Model		7.2 kW	9 kW	12.5 kW	14 kW	17.5 kW	22.4 kW	25.2 kW	28 kW	33.5 kW	40 kW	45 kW	50 kW	56 kW	61.5 kW	67 kW	73 kW	79 kW	85 kW	90 kW
Air Flux	AF4300A 8-18 kW		●	●	●	●	●														
	AF4300A 25-40 kW								●	●	●	●									
	AF4300A 45-62 kW												●	●	●	●					
	AF5301A (C) 25-45 kW								●	●	●	●	●								
	AF5301A (C) 50-67 kW													●	●	●	●				
	AF5301A (C) 73-90 kW																	●	●	●	●
	AF6300A C 22-33 kW							●		●	●										
	AF6300A C 40-50 kW											●	●	●							

Different models are available to satisfy the requirements of all customers.

To reach higher performance it is possible to install in cascade the models of the AF5301A C and AF6300A C ranges.

Air Flux – AF5301A C		
From 25 to 90 kW	From 95 to 180 kW	From 185 to 270 kW
		

Air Flux – AF6300A C		
From 22 to 50 kW	From 56 to 100 kW	From 106 to 150 kW
		

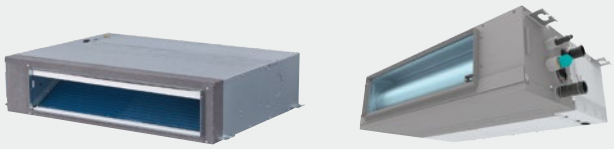
Air Flux Indoor Units
Easy to install in any room

With the Air Flux Indoor Units Bosch offers an attractive new modular system for creating air conditioning systems. This extremely flexible system can meet any requirement. It's the solution for a simple, practical response to all your customers' air conditioning needs from a single provider: Bosch.

The range of indoor units includes 13 families and more than 100 models.

Cassette

Ducted



Wall

Ceiling/Floor

Floor

Simply comprehensive

The new Air Flux series provides highly efficient outdoor units with a total output capacity of up to 90 kW. Up to three outdoor units can be combined to reach up to 270 kW in a single system, if necessary. Outdoor units can be combined flexibly with 13 different types of indoor units, offering a wide range of capacities. Custom-developed, easy-to-operate controls and a lot of accessories complete the product portfolio.

Simply innovative: Air Flux Design

All units of the modular Air Flux system are adapted to each other already in the planning phase. Their appealing, modern look makes a good impression in every room and enhances your professional reputation.

Controllers

A wide range of controllers divided into three families (infrared, wired and centralised) is available to optimize the selected VRF system.

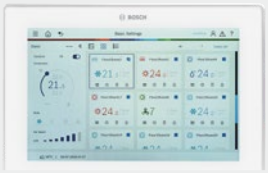
Simply controlled

The advantages of a centralised control system:

- extremely easy temperature control in each room
- user-friendly because of numerous intelligent functions
- time and energy savings due to many different control logics and time plans

Bosch has used all its experience in air conditioning control to develop a simple and also functional controller family. The functions and operating modes the new controllers are perfectly adapted to the needs of users and professionals.
The UX (User Experience) concept used in the latest generation of controllers provides a fully customised product with an exclusive operation and interaction approach.

Centralised controller

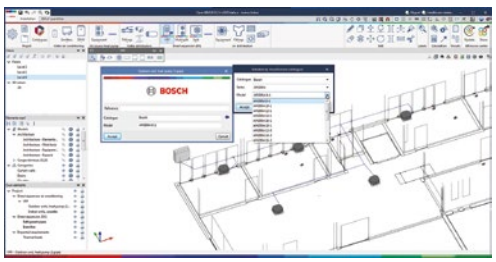


Individual controller

Air Select professional selection software

- Selection software developed by Bosch, including all indoor and outdoor units as well as controllers
- **bosch-airselect.com**
- Tutorial: **media.video.bosch.com/media/Get+started+with+Bosch+Air+Select/0_64sax3cs**
With Bosch Air Select you can easily design your VRF systems by drop down – and drag ‘n drop logic.A desktop version is also available to work independent from internet.

Open BIM Bosch

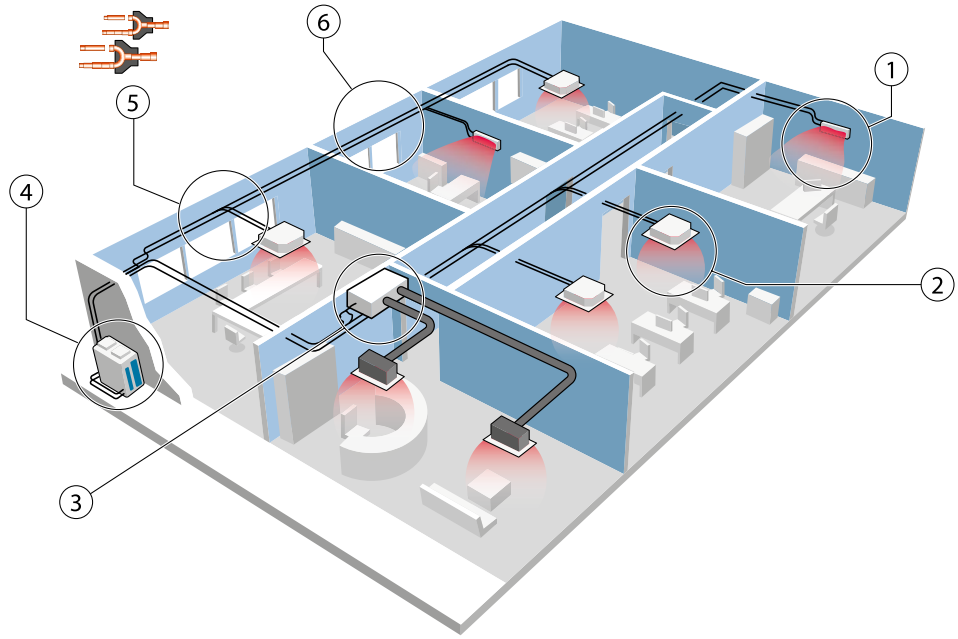


- Analysis, design and BIM modelling of Bosch VRF systems.
- https://store.bimserver.center/de/app/286/open_bim_bosch

Open BIM Bosch is a software for designing air conditioning systems. Using either a DXF template or a 3 D model, the program allows the distribution of elements and pipes within the building, the calculation of equipment capacity and pipe diameters, and the generation of project results.

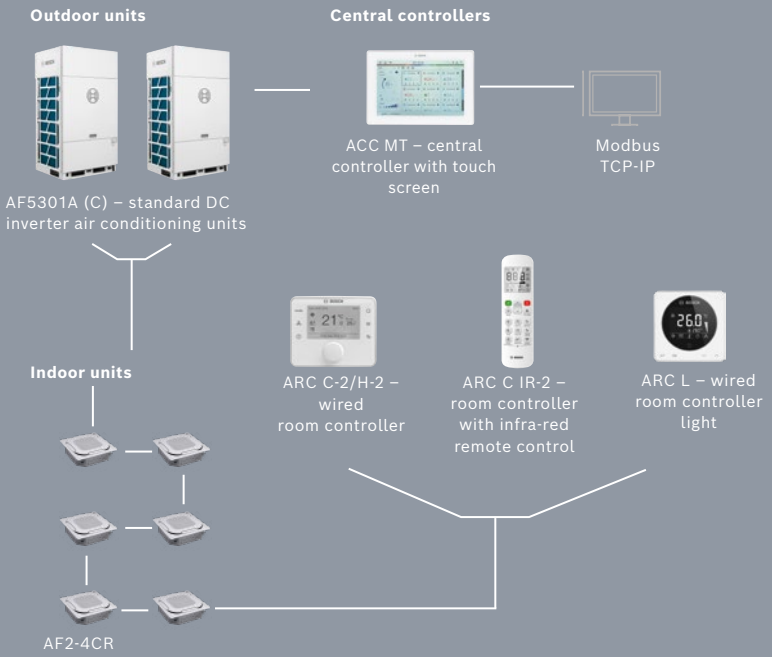
2-Pipe-System

The refrigerant system of a 2-pipe system always contains 2 refrigerant pipes (liquid and suction gas) – similar to the water supply and return of a heating system. Accordingly, all indoor units connected to an outdoor unit can either cool or heat. Depending on the number of indoor units, different kinds of “branches“ are used in the pipe network by so-called branch pipes (usually known in heating applications as Y-distributors).



1 Wall-mounted indoor unit
2 4-way ceiling cassette
3 Built-in ducted indoor unit
4 Outdoor unit(s)
5 Branch pipes
6 Refrigerant pipe (2 pipes)

Multiple Control options – **within one system**

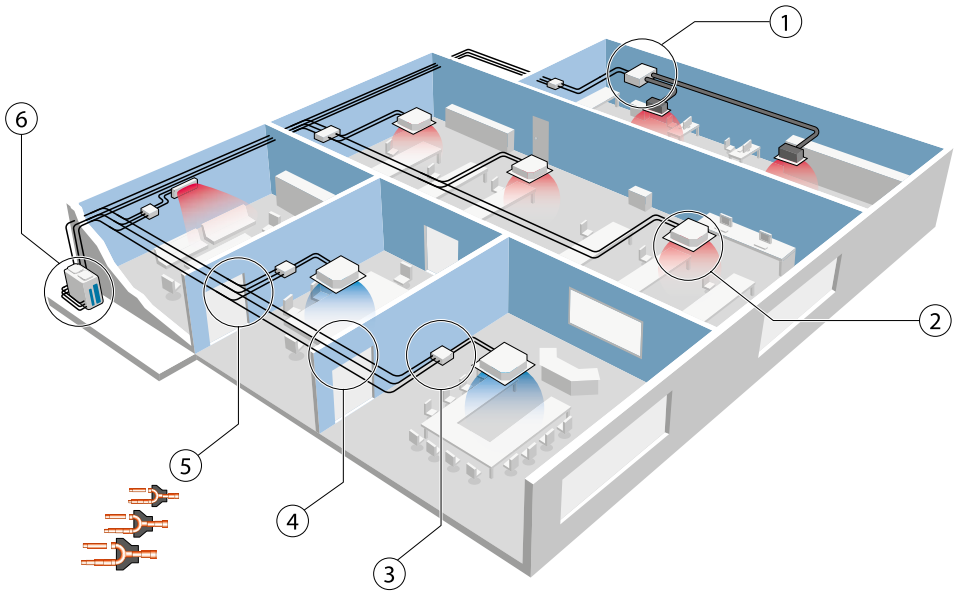


Notice: The overview shows the signal path only and not the actual connection routes.

3-Pipe-System

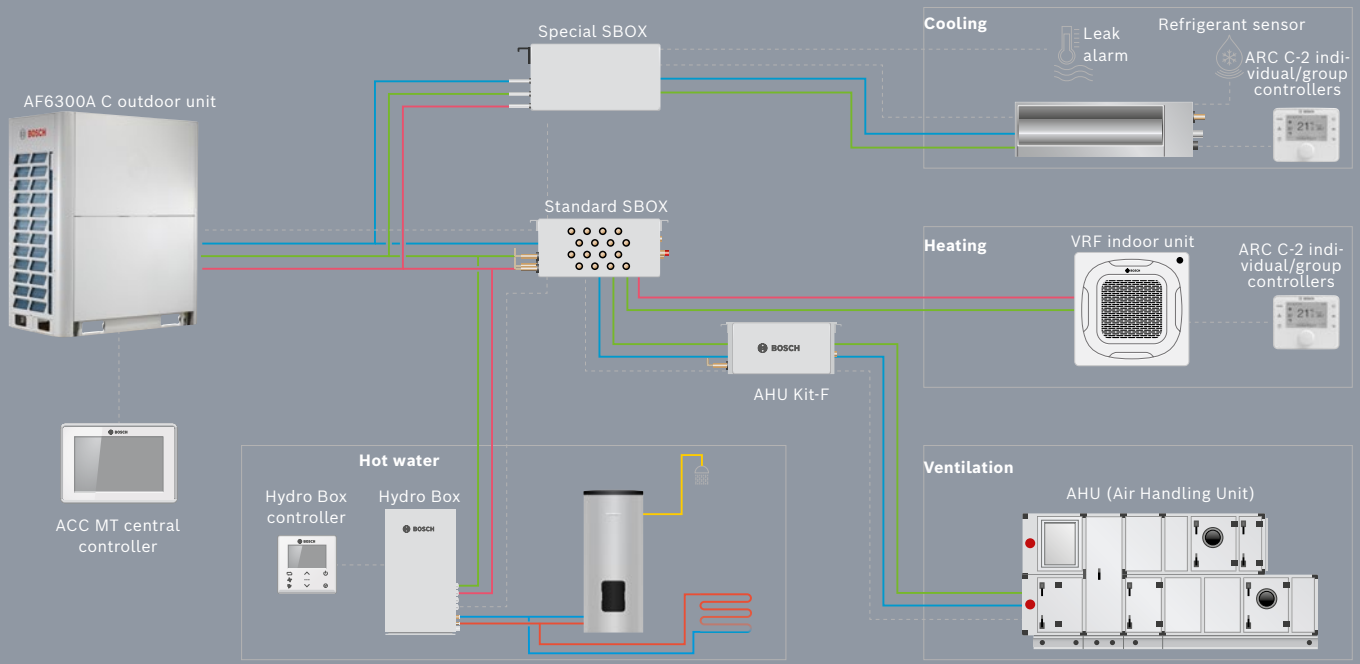
Contrary to the2-pipe systems, with the 3-pipe systems Air Flux 6300 uses 3 refrigerant pipes (fluid, suction gas and hot gas) from the outdoor unit into the building. These 3 pipes are always connected to at least one switch box (SBOX) to which the indoor units (with only 2 pipes) are connected.

Depending on the selected operating mode (cooling or heating), this system provides the refrigerant in the required aggregate state. With this system, it is therefore possible to cool and heat in different rooms at the same time.



1. Built-in ducted indoor unit
2. 4-way ceiling cassette
3. Switch box
4. Refrigerant pipe (3 pipes)
5. Branch pipes
6. Outdoor unit(s)

Cooling, heating, hot water and ventilation – **all requirements covered within one system**



Notice: Schematic overview. Please be aware that it is not possible to combine hydrobox and AHU Kit-F within one system.

VRF air conditioners manufacturing plant

Make. Home. Comfort. Green.

VRF air conditioners manufacturing plant is a joint venture established by Bosch. Located in Hefei, China, the plant is dedicated to develop, manufacture and deliver variable refrigerant flow (VRF) systems for the global HVAC (heating, ventilation and air conditioning) market under the Bosch brand.

Adhering to Bosch HC purpose of “Make. Home. Comfort. Green.”, the plant integrates a variety of new technologies including Bosch Comfort Technology system expertise to manufacture VRF air conditioners systems, and strictly follows the globally unified Bosch production standards. Therefore, the high-quality, energy efficient and diversified VRF air conditioners products and control systems can meet different needs of customers from different regions, perfectly illustrating the Bosch Group “Invented for Life” vision.

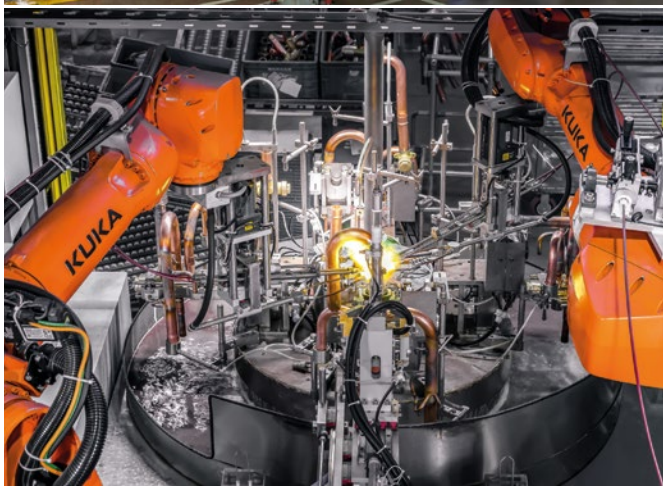
The plant has state of the art manufacturing system that utilizes advanced technology to help increase productivity, reduce costs, improve product quality and shorten product delivery times.

Automated equipment and robots realize unmanned production at key positions, which greatly reduces cycle time. Meanwhile, our system is equipped with high precision sensors and online inspection station to ensure the stability and consistency of product quality.

The plant is also undergoing a digital transformation to achieve digital monitoring and traceable management of the production process through the introduction of intelligent production equipment and monitoring systems. We are also applying artificial intelligence technology to quality control to further improve product quality.

State of the art manufacturing

- Automated equipment and robots
  Robots can help us improve efficiency, reduce labor costs and stabilize the process.
- Tightening with precise torque
  The Bosch Rexroth tightening system is used on the production line to ensure precise torque when tightening screws.
- Digitized traceability
  Eliminates the risk of heating and burning of the wiring harness.
- One stop refrigerant charging
  The precise one-stop automatic vacuuming and charging system provides a strong guarantee of product performance.
- Unmanned logistics distribution in the factory
  Realize intelligent and unmanned logistics in production.
- Smarter online testing:
  AI algorithm for online testing
  Automated testing mode shifting
  Indoor units simulated



Higher quality and reliability

- Modular PCB layout
  The flat layout of the modular integrated electronic control unit makes manufacturing simpler and maintenance easier, thus increasing product reliability.
- Leak-free products
  To reduce the leakage rate, various measures are needed, one of which is to replace fluctuating manual welding with stable automated machine welding.
- No product damage after multiple transfers
  Omni Packaging solutions for the entire machine to avoid logistics losses caused by multiple transfers from the factory to the customer's terminal.
- Product compliance without compromise
  Unlike the common practice in the industry, Bosch has specially designed isolation covers for electrical components.
- Comprehensive product testing system
  The plant features a systematic testing system that includes enthalpy method test rooms for outdoor and indoor units.

Outdoor Units

Efficiency in simplicity – our air conditioning units meet the requirements of any application.

	Model		7.2 kW	9 kW	12.5 kW	14 kW	17.5 kW	22.4 kW	25.2 kW	28 kW	33.5 kW	40 kW	45 kW	50 kW	56 kW	61.5 kW	67 kW	73 kW	79 kW	85 kW	90 kW
Air Flux	AF4300A 8-18 kW		●	●	●	●	●														
	AF4300A 25-40 kW								●	●	●	●									
	AF4300A 45-62 kW												●	●	●	●					
	AF5301A (C) 25-45 kW								●	●	●	●	●								
	AF5301A (C) 50-67 kW													●	●	●	●				
	AF5301A (C) 73-90 kW																	●	●	●	●
	AF6300A C 22-33 kW							●		●	●										
	AF6300A C 40-50 kW											●	●	●							

Different models are available to satisfy the requirements of all customers.

Air Flux 4300A Mini and Compact VRF Systems

Individual solutions for small and medium capacity

Highlights

- Very efficient system
- Suitable for cooling or heating
- Heating operation for outdoor temperatures up to -30°C
- Capacity from 8 kW to 62 kW
- Highly efficient with an SEER of up to 7.8 and a SCOP of up to 4.9
- Compatible with all AF2 units and controllers

Simply flexible

Possible installation in larger buildings – pipe lengths up to 560 m; height difference between indoor and outdoor unit of up to 50 m. Unlimited flexibility of the system configuration – compatible with AF2 indoor unit series as well as related controllers.

Simply reliable

Similary to the Maxi Air Flux series, the AF4300A series also includes various control and safety systems. Combination with the high-quality refrigeration circuit components ensures the most reliable system operation.

Simply plan

Various capacity enables fine-tuned adaptation to the required cooling capacity. The large, maximum permissible pipe lengths makes it easy to design a hydraulic system flexibly. The special developed Bosch configuration software “Air Select“(www.bosch-airselect.com) offers simple project planning: Easy and intuitive via drop down and drag ‘n drop logic. It also checks fully automatically whether all framework conditions for the system design have been met.

Features – Air Flux 4300A

Line-Up

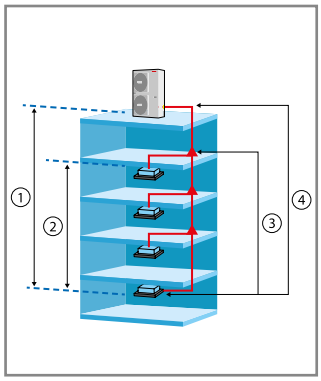
Wide Range of Applications

The capacity from 8 kW to 62 kW is ideal for small office buildings, villas, apartments, and stores. Therefore, AF4300A series is a perfect solution for commercial and residential applications.

kW	8 - 18	25 - 40	45 - 62
			

Features – Air Flux 4300A

Allowed Lengths and Dimensions



			Allowed values (m)		
			8-10 kW	12-18 kW	25-62 kW
Length of piping	Actual total pipe length[1]		150	300	560
	Maximum distance of piping between ODU and farthest IDU	Actual distance	50	100	150
		Equal distance	60	120	175
	Maximum piping distance between the first branch and the furthest IDU		30	40	40 (90)[2]
Level distance	Level distance between indoor and outdoor units	Outdoor unit on top	30	50	50
		Outdoor unit below	20	40	40
	Level distance between indoor units		15	15	30

[1] The total piping length is equal to the length of all liquid piping or all gas piping.
[2] Conditional : The difference between the maximum pipe length from the outdoor unit to the nearest and farthest indoor unit must be smaller than 40 m

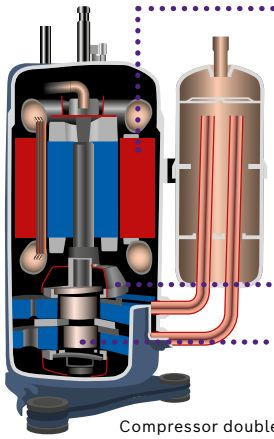
Level difference indoor unit and outdoor unit is 50 m
Level difference indoor units is 15 m

From the first branch pipe to the furthest indoor unit is 30 - 90 m
Longest pipe length is 150 m

Advanced Technology: The Full DC Inverter

Powerful and highly accurate

A scroll compressor driven by an intelligent power module (Inverter) – this is the heart of our system. This advanced technology adjusts the capacity of the outdoor unit according to the cooling or heating demand of connected indoor units. This innovative system provides accurate temperature control and highly efficient energy use.



Compressor double rotary

Highly Efficient Brushless DC Motor:
- Creatively designed motor core
- High-density neodymium magnet
- Concentric type stator
- Wider Operating Frequency Range
- Up to 50 % of energy saving

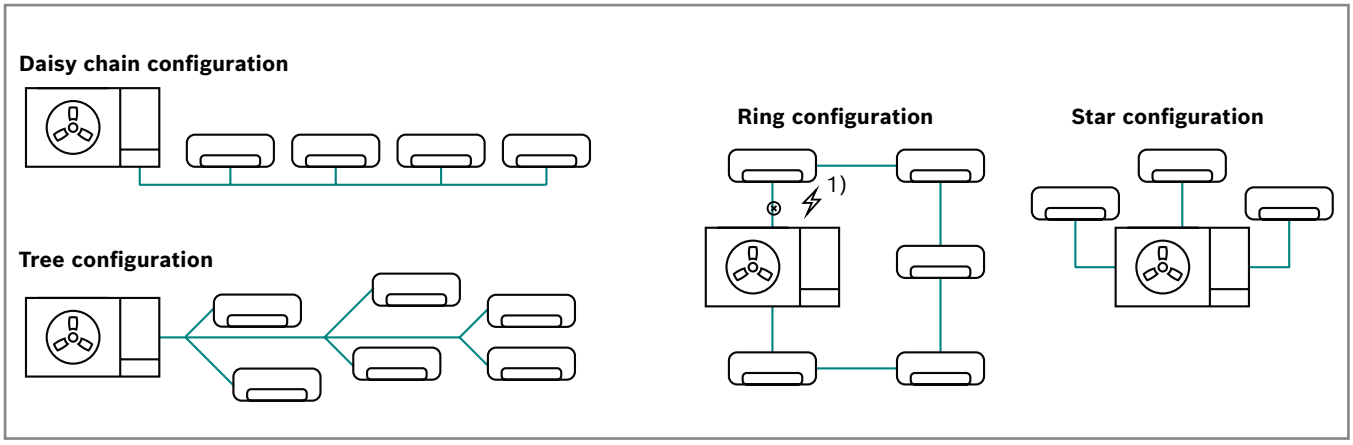
Better Balance and Extremely Low Vibration:
- Double cam eccentric
- 2 Balancing Counterweights

High-stability Moving Parts:
- Optimized cylinder and vane construction material technology
- Optimized compressor drive technology
- Highly robust bearings
- Compact structure

New communication protocol: Super Link

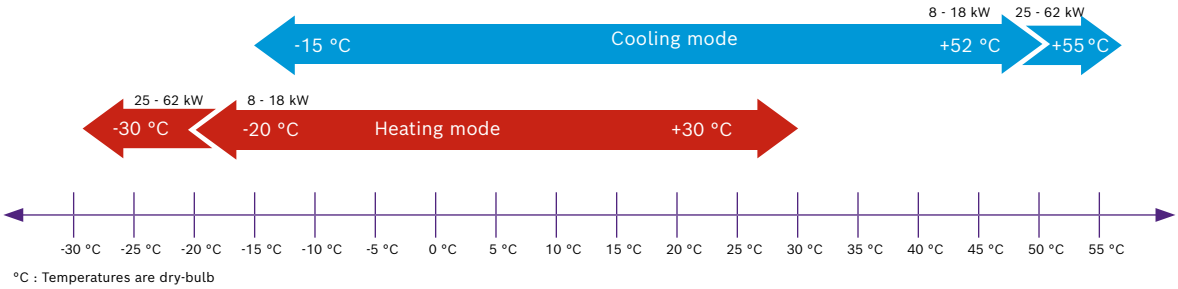
Supports any communication topology
In addition to a traditional daisy chain configuration, the communication wire supports tree configuration, star configuration, ring configuration and so on. Flexible wiring is possible, thus greatly reducing installation costs and preventing incorrect connections on site.

- Greater immunity to interference
- No polarity (M1M2 can be connected in any way)
- Length (M1M2 can be up to 2000 m)
- Flexible wiring
- Reliable connection



[1] If ring configuartion is used the system keeps operating even if communication wiring has an interruption at one point.

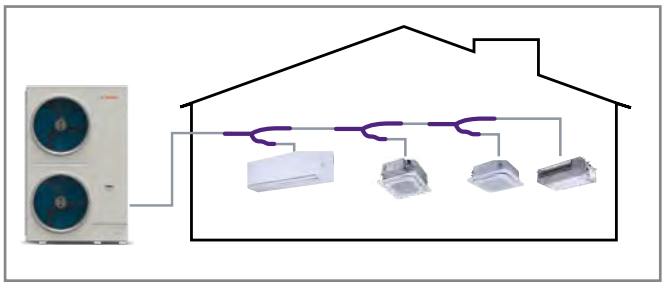
Wide Outdoor Ambient Operating Range

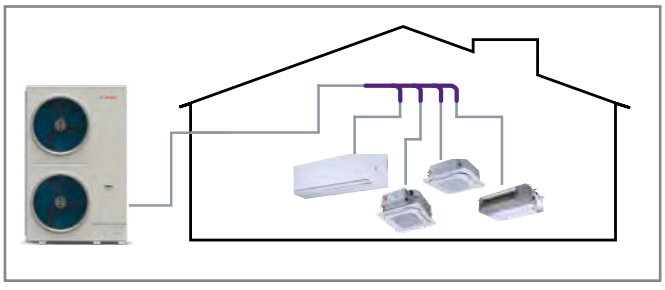


°C : Temperatures are dry-bulb

Flexible Connection of Indoor Units

The AF4300 series with intelligent control provides independent zone control with maximum flexibility.
A single outdoor unit can support up to 36 indoor units. You can choose between joint and branch header connection logic.


Installation with joint


Installation with branch header

Technical Data – Air Flux 4300A

Model			AF4300A 8-1	AF4300A 10-1	AF4300A 12-1	AF4300A 14-1	AF4300A 16-1	AF4300A 18-1	AF4300A 12-3	AF4300A 14-3	AF4300A 16-3	AF4300A 18-3
Power supply		**V/N/Hz**	230/1/50						380 - 415/3/50			
Cooling	**Rated capacity[1)]**	**kW**	7.2	9	12.3	14	15.5	17.5	12.3	14	15.5	17.5
	SEER		5.8	5.7	7.8	7.4		7.1	7.8	7.4		7.1
Heating	**Rated capacity[1)]**	**kW**	7.2	9	12.3	14	15.5	17.5	12.3	14	15.5	17.5
	SCOP		3.8		4.9	4.8			4.9	4.8		
Indoor units installed	**Total capacity**	**%**	50 - 160									
	Maximum quantity	**pcs**	5	6	8	10	11	12	8	10	11	12
Sound pressure level[2)]		**dB(A)**	53		55	56		58	55	56		58
Sound power level		**dB**	68	69	70	71	72	73	70	71	72	73
Power input[3)]	**MCA**	**A**	21.3	24.0	32.0	35.0	40.0		14.0	15.0	17.0	
	MFA	**A**	25.0		32.0	40.0			20.0			
Piping connection	**Liquid**	**mm**	ø 9.5									
	Gas	**mm**	ø 15.9									ø 19.1
Fan motor	**Type**		DC									
	Quantity	**pcs**	1									
	Air flow rate	**m^3/h**	5,200		5,000			5,500	5,000			5,500
	Motor output	**W**	200									
	ESP	**Pa**	0									
DC inverter scroll compressor	**Maximum quantity**		1									
	Oil type		FW68S									
Overall dimensions (W x H x D)		**mm**	1,038 x 864 x 409									
Net weight		**kg**	77		94				110			
Gross weight		**kg**	88		105				121			
Operating temperature range	**Cooling**	**°C**	-15/52									
	Heating	**°C**	-19.8/15									
Data related to EU F-gas Regulation 517/2014												
Environmental information			Contains fluorinated greenhouse gases									
Refrigerant type			R-32									
GWP index	**Global warming**	**$kgCO_2$-eq**	675									
Factory charging		**kg**	2		2.85							
Amount of refrigerant		**tCO_2-eq**	1,350		1,924							
Refrigerant circuit design			Not hermetically sealed									

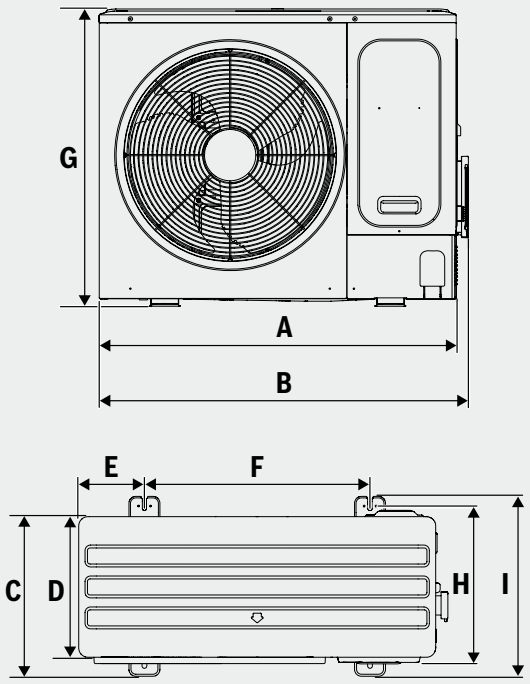
[1)] Rated capacities are measured according to EN 14511.
[2)] Sound pressure levels are measured in a anechoic room, 1 m in front of the unit and 1.3 m above the floor.
[3)] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.

Model			AF4300A 25-3	AF4300A 28-3	AF4300A 33-3	AF4300A 40-3	AF4300A 45-3	AF4300A 50-3	AF4300A 56-3	AF4300A 62-3
Power supply		**V/N/Hz**	380 - 415/3/50							
Cooling	**Rated capacity**[1]	**kW**	25.2	28	33.5	40	45	50	56	61.5
	SEER		7.3	7.1	6.9	6.7	6.8	6.5	6.3	6.2
Heating	**Rated capacity**[1]	**kW**	25.2	28	33.5	40	45	50	56	61.5
	SCOP		4.2	4.1		4.2			4.1	4.0
Indoor units installed	**Total capacity**	**%**	50 - 130							
	Maximum quantity	**pcs**	13	16	19	22	26	29	32	35
Sound pressure level[2]		**dB(A)**	56	57	58	59	60	61		62
Sound power level		**dB**	76	79	81	82	86	88	89	
Power input[3]	**MCA**	**A**	17.0	21.0	23.0	28.0	30.0	33.0	40.0	45.0
	MFA	**A**	20.0	25.0	32.0		40.0		50.0	
Piping connection	**Liquid**	**mm**	ø 12.7				ø 15.9			
	Gas	**mm**	ø 25.4				ø 28.6			
Fan motor	**Type**		DC							
	Quantity	**pcs**	2							
	Air flow rate	**m^3/h**	11,800	12,500			18,500	20,000	18,500	19,000
	Motor output	**W**	0.2x2				0.56x2			
	ESP	**Pa**	0 - 35							
DC inverter scroll compressor	**Maximum quantity**		1							
	Oil type		FVC68D							
Overall dimensions (W x H x D)		**mm**	1,130 x 1,760 x 580				1,250 x 1,760 x 580			
Net weight		**kg**	177		180	187	214		234	
Gross weight		**kg**	191		194	201	229		249	
Operating temperature range	**Cooling**	**°C**	-15/55							
	Heating	**°C**	-29.8/30							
Data related to EU F-gas Regulation 517/2014										
Environmental information		**tCO_2-eq**	Contains fluorinated greenhouse gases							
Refrigerant type			R410A							
GWP index	**Global warming**	**$kgCO_2$-eq**	2,088							
Factory charging		**kg**	6.1		6.4	7.4	8.0		8.5	
Amount of refrigerant		**tCO_2-eq**	12,736.8		13,363.2	15,451.2	16,704		17,748	
Refrigerant circuit design			Not hermetically sealed							

[1] Rated capacities are measured according to EN 14511.
[2] Sound pressure levels are measured in a anechoic room, 1 m in front of the unit and 1.3 m above the floor.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.

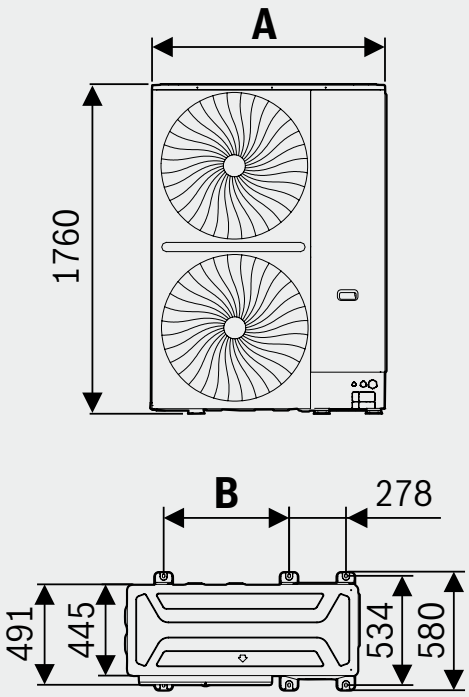
Technical Drawings and Installation Dimensions

Dimensions Air Flux 4300A up to 18 kW in mm



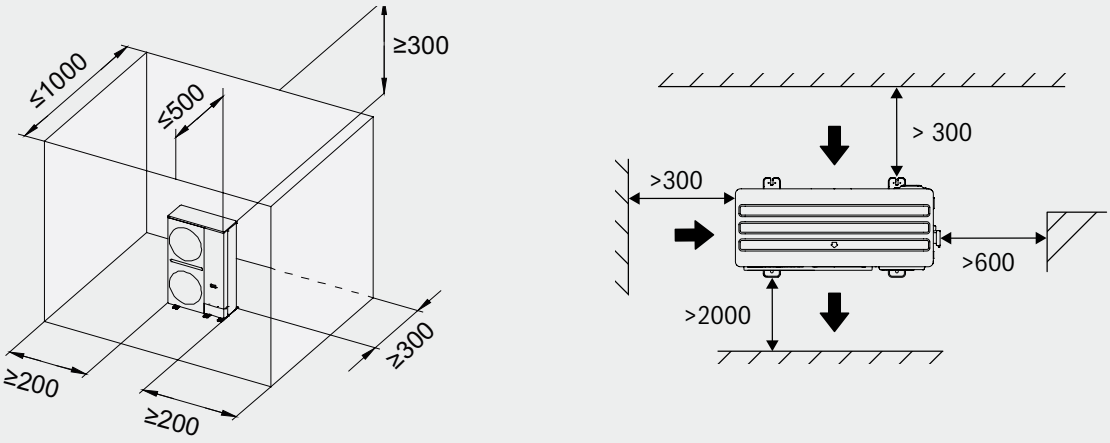
Unit	A	B	C	D	E	F	G	H	I
mm	1038	1073	454	409	191	656	864	463	523

Dimensions Air Flux 4300A 25 – 62 kW in mm

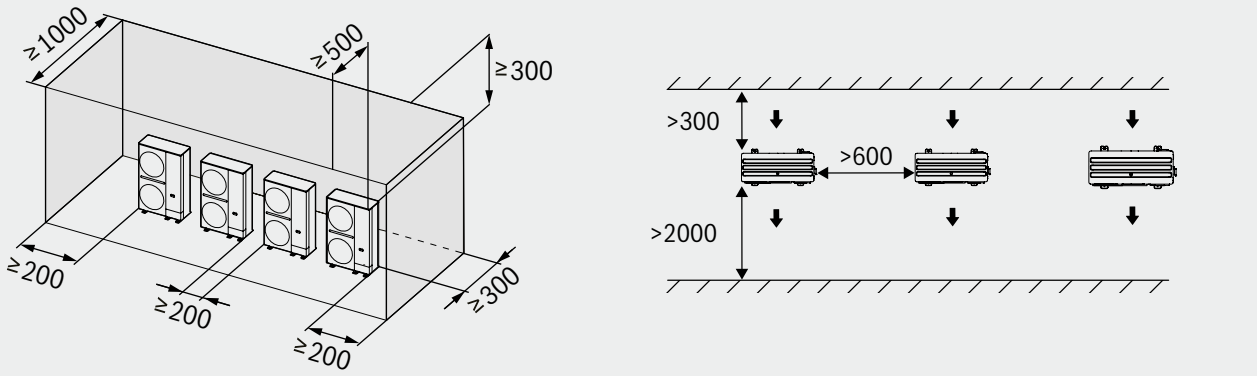


	A (mm)	B (mm)
25 - 40 kW	1130	614
45 - 62 kW	1250	674

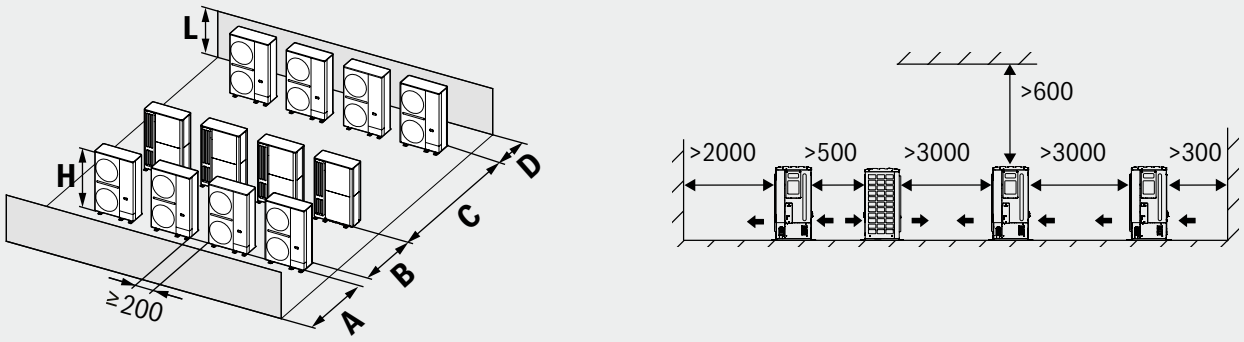
Installation dimensions Air Flux 4300A up to 18 kW in mm – Individual appliance



Installation dimensions Air Flux 4300A up to 18 kW in mm – Several appliances side-by-side



Installation dimensions Air Flux 4300A up to 18 kW in mm – Several appliances opposite one another



Number of rows	L (mm)	A (mm)	B (mm)	C (mm)	D (mm)
1	–[1)]	≥ 1000	≥ 200	≥ 2000	≥ 200
> 1	0 < L < H/2	≥ 1500	≥ 600	≥ 3000	≥ 300
	H/2 ≤ L ≤ H	≥ 1500	≥ 600	≥ 3000	≥ 450

[1)] No restriction

Accessory for Air Flux 4300A

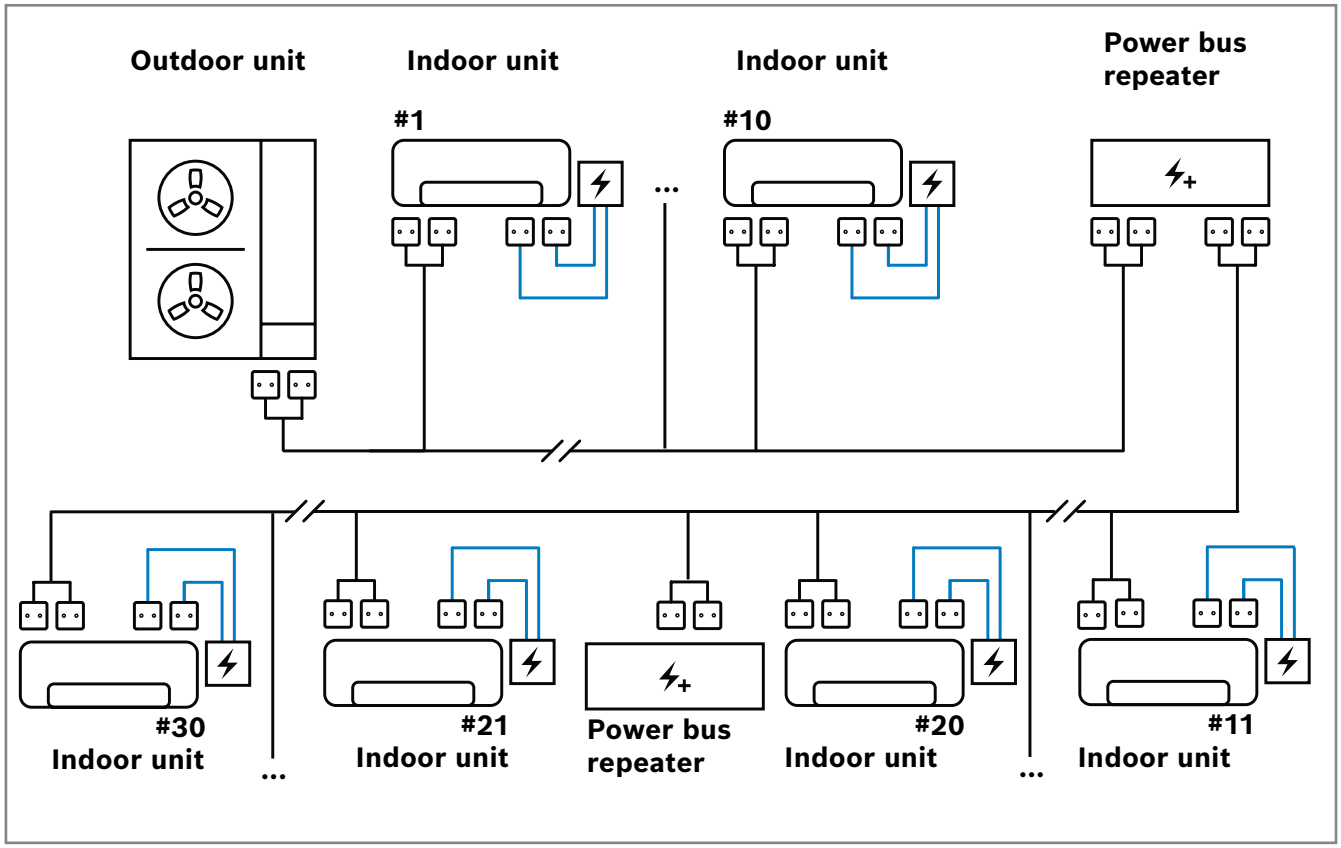
Power bus repeater AF2-PBR for AF4300A compact VRF systems (25 to 62 kW)

Needed if:
- Total cable length is > 200 m
- More than 10 IDU are connected
- Maximum 2 repeater per system
- Indoor units have individual power supplies

Main function:
- Strengthen the communication line of air conditioning system

Product material:
- Including a PCB with plastic cover

Power supply:
- 230 V, 50 H, 1-ph



Refrigerant shut-off device AF2-PD 01 for AF4300A mini (R32)

Main function:
- In case refrigerant leaks from the R32 AC system, it closes the refrigerant circuit, pumps the system's refrigerant to the outdoor unit and limits refrigerant leackage. For use together with alarm sensor.

Product material:
- PCB and copper pipe assembly with metal cover

Installation place:
- Horizontally outside

Power supply:
- 230 V, 50 Hz

Refrigerant leackage detector AF2-LS 01 for AF4300A mini (R32)

Main function:
- Detects leakage in pipe system

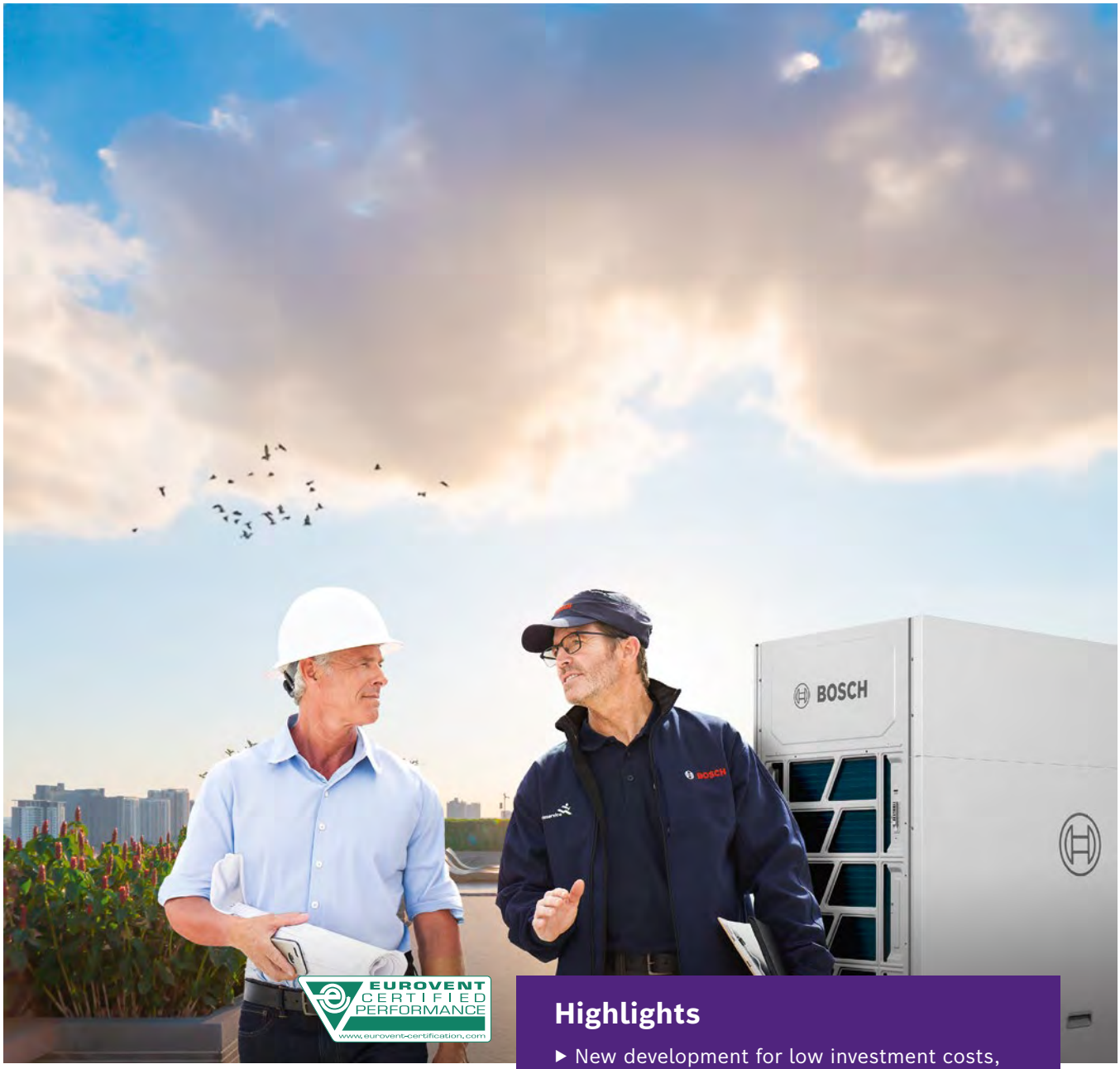
Product material:
- Incl. a PCB, sensor with plastic cover

Installation location:
- Indoors - max. 150 cm height from floor

Power supply:
- 230 V, 50 Hz

Air Flux 5301A (C) Outdoor Unit

For a perfect climate, with a high level of quality



Highlights

- New development for low investment costs, low space requirement and flexible project design
- 13 outputs of up to 90 kW
- System capacity extandable up to 270 kW thanks to cascading of up to three units
- Highly efficient with an SEER of up to 7.6 and a SCOP of up to 4.5
- Attractive design
- Heating down to -30 °C

Simply efficient

With Air Flux 5301A (C), Bosch is offering you a range of units for comprehensive air conditioning of buildings. At its core is a scroll compressor with vapour injection. An intelligent energy management system automatically adjusts the temperatures in the refrigeration circuit for maximum comfort and high energy savings.

Simply flexible

Copper piping lengths of up to 1100 m and a height difference of max. 110 m between the indoor and outdoor units offer a flexible project design and simple installation.
The installation process is further simplified by the automatic refrigerant charge and simple data check supported with a diagnosis tool.

Simply reliable

A large number of automatic checks ensure that it operates reliably on a day-to-day basis. A fully sealed E-Box with multi-channel cooling provides an all around protection for internal electronic components.

Simply quiet

Multi silent mode with 15 different steps can be adjusted, which allows sound pressure levels down to 42 dBA.

Simply plan

Different unit sizes and maximum copper piping length of up to 1100 m simplify planning. A wide range of outdoor units from 25 to 90 kW and many different types of indoor units allows project design flexibility. In addition, Bosch uses the intelligent Air Select planning tool to support you: It is extremely easy to use and helps you determine your optimum system configuration in no time.
Open BIM Bosch selection and design software allows 2D and 3D design as well.

Simple service

The sophisticated technology reduces the need for service work. This pays off for the end user and improves the availability of the system. Self-cleaning functions for clearing dust and snow extend the service life and reduce maintenance costs. Auto addressing and maintenance mode allow to ensure simple and fast service.

Features – Air Flux 5301A (C)

The Air Flux 5301A (C) line up includes two different models. The AF5301A series are individual units which are not cascadable. The capacity is up to 90 kW for a single unit. The AF5301A C series can be cascaded up to 270 kW by using three ODU's together. Further product description is valid for both types if nothing else mentioned.

Line-Up AF5301A and AF5301A C

kW	25 - 45	50 - 67	73 - 90
			
kW	95 - 180	185 - 270	
			

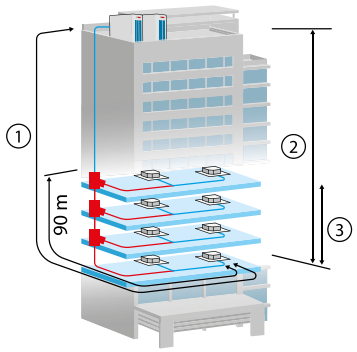
- 13 different models with a capacity up to 90 kW
- Free modular combination with 2HP increase up to 270 kW for combination (C) series
- Combination ratio min 50 % - max 200 % (130 % for cascaded units)
- 380 - 415 V, 50 Hz, 3-ph
- CE and Eurovent certified

Features – Air Flux 5301A (C)

Highlights

- Automatically and manually adjustable evaporation and condensation temperatures
- 15 silent modes
- Operating compressor frequencies from 45-420 Hz/30-390 Hz (depending on model)
- Super link communication technology
- Anti-frost mode, prevents the build up of frost on the equipment
- Back-up mode
- Capacity restriction (from 100 % to 40 %)
- Automatic refrigerant charging option
- Fully sealed E-Box
- Extended opreation range:
  Cooling -15 °C to +55 °C, Heating -30 °C to +30 °C
- Auto Dust and Auto Snow blowing function
- Optimised commissioning functions

Allowed Lengths and Dimensions

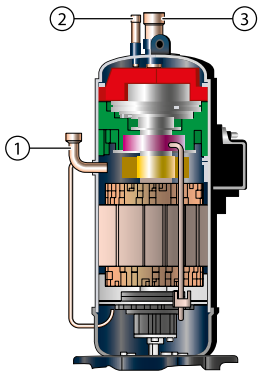


Actual maximum distance 220 m
Gap between indoor unit – outdoor unit 110 m
Gap between indoor unit – indoor unit 40 m

Item			Permitted value (m)
Piping length	Actual total length of pipes		1100[1]
	Maximum piping distance between ODU and furthest IDU (L)	Actual pipe distance	220
		Equivalent pipe distance	260
	Maximum piping distance between first branch and furthest IDU		40/120[2]
Level difference	Level difference between IDU and ODU	Outdoor unit above	110
		Outdoor unit below	110
	Level difference between IDUs		40

[1] The total piping length is equal to two times the length of the — pipe plus the — pipe.
[2] When the piping length of the IDU furthest from the first indoor branch is greater than 40 m, the specific conditions must be met in accordance with the technical manual to reach 120 m.

Improved Heating Capacity

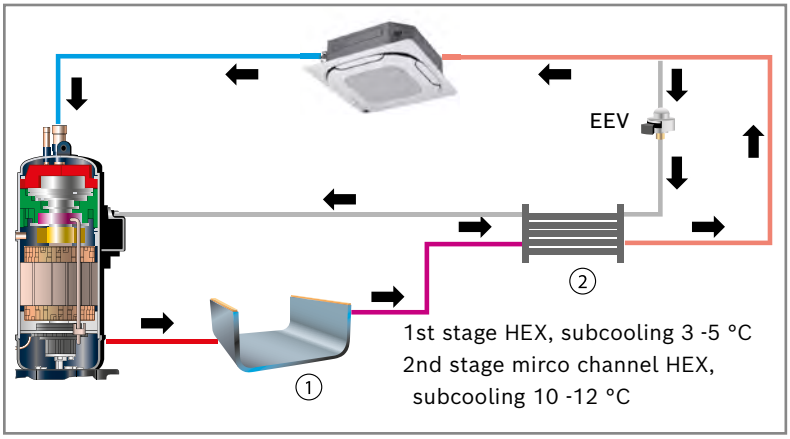


Vapor injection type compressor

- Increased heating performance by 20 % in average for outdoor temperatures below +7 °C
- Stable operation down to -30 °C
- Improved heating capacity at lower temperatures down to -15 °C
- Vapor injection type compressor also ensures efficient sub-cooling without loss during cooling operation.
  A wide frequency range of an inverter compressor ensures reliable operation during partial load. The unit modulates between 45 and 420 Hz (30 - 390 Hz for 40 - 50 kW models).

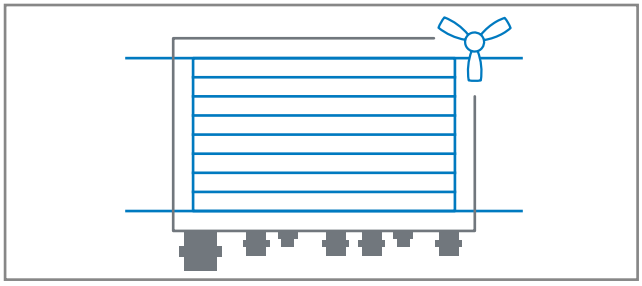
High-pressure refrigerant discharge
Gas vapor injection
Low-pressure refrigerant suction

Microchannel heat exchanger (HEX): Advanced Subcooling Technology



- In cooling mode, it can improve super-cooling degree, the super-cooled refrigerant can achieve better performance for indoor units.
- In heating mode, the refrigerant from the microchannel heat exchanger injected to the compressor can increase the refrigerant volume and improve the heating capacity in low ambient temperature.
- Refrigerant volume in microchannel heat exchanger is controlled according to temperature difference between its inlet(T6A) and outlet(T6B) or the temperature difference between discharge temperature and target discharge temperature.

Microchannel Cooling Circuit

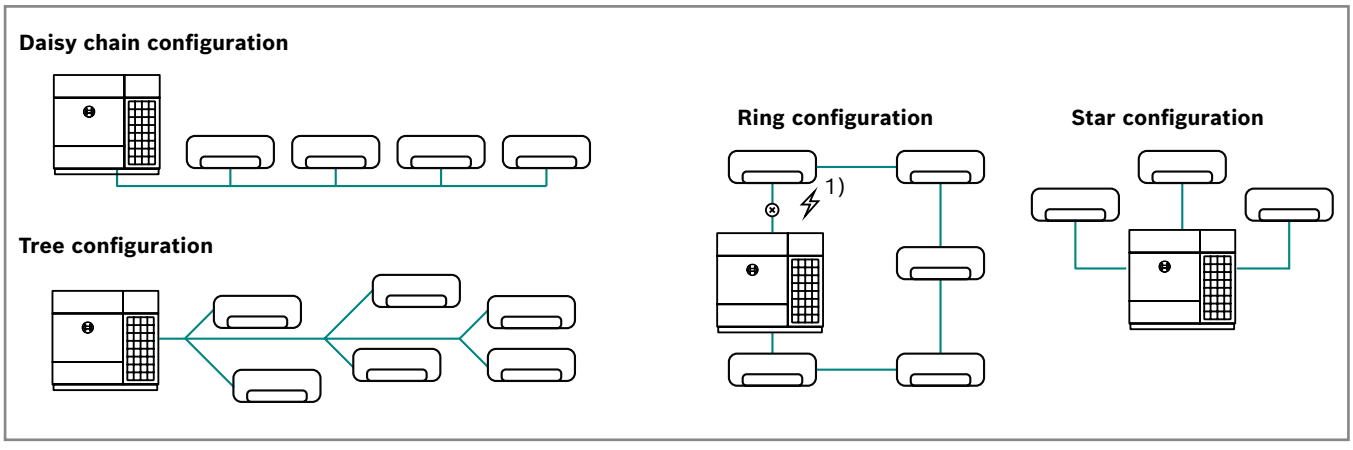


To protect the fully sealed E-Box from high temperature the microchannel cooling ensures reliable operation.
The refrigerant in a microchannel heat exchanger is controlled according to temperature difference between its inlet (T6A) and outlet (T6B) or the temperature difference between discharge temperature and target discharge temperature.

New communication protocol: Super Link

Supports any communication topology
In addition to a traditional daisy chain configuration, the communication wire supports tree configuration, star configuration, ring configuration and so on. Flexible wiring is possible, thus greatly reducing installation costs and preventing incorrect connections on site.

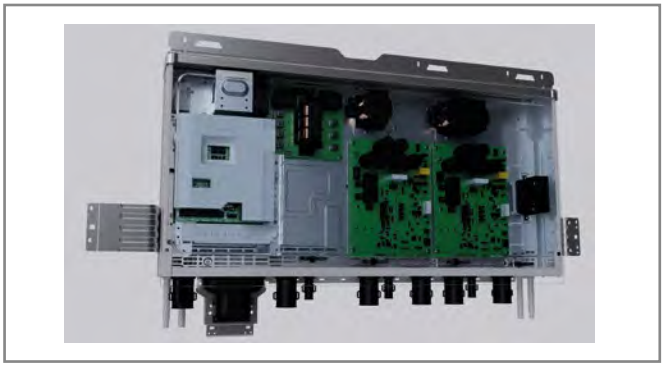
- Greater immunity to interference
- No polarity (M1M2 can be connected in any way)
- Length (M1M2 can be up to 2000 m)
- Flexible wiring
- Reliable connection



[1] If ring configuartion is used the system keeps operating even if communication wiring has an interruption at one point.

Features – Air Flux 5301A (C)

Fully Sealed E-Box – High Realibility



Fully sealed:
- Dustproof and waterproof
- The whole electric control box has no heat dissipation opening
- IP55 classified

+55 °C:
- Stable operation in extremely hot summer
- All microchannel refrigerant cooling

-30 °C:
- Stable operation in extremely cold winter

Note:
Fully sealed electric control box provides all around protection for internal electronic components and ensures reliability.

Multi Silent Mode

- 15-step silent mode enables lower noise levels when required.
- For all modes, fan speed and compressor frequency is limited to certain values to reduce sound levels.

ODU 25 kW (cooling)		
Mode	dB(A)	Cap.
0	58	25,2
1	57,8	30,5
2	56,3	29,2
3	54,2	27,4
4	53,3	26,2
5	52,3	24,1
6	52,3	22,0
7	51,6	19,9
8	51,3	18,5
9	49,6	17,4
10	48,9	15,7
11	44,5	14,5
12	43,6	13,2
13	42,3	10,2
14	41,2	8,3

dB (A): Sound pressure level
Cap.: Available cooling capacity in kW

Note:
For other models please refere to installation manual.

Dust Cleaning and Snow Blowing function

Auto Dust Cleaning

The Auto dust cleaning function of the outdoor unit helps to protect the heat exchanger from dust – or other contamination which leads to less manual cleaning demand.
The maintained system works with high efficiency, as installed on the first day and functions reliably.

Auto Snow Blowing

The auto snow function protects the outdoor unit from snow – the fans start automatically for a short period of time to blow the snow away.
This setting is controlled via dip switch on the outdoor unit‘s PCB.

Several Operation Modes

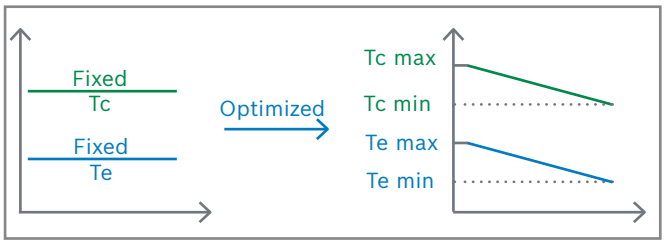
You have the choice! In total 10 different operation modes are available - select the operation mode you need.

Mode	Description
Auto mode	Outdoor unit operates according to ambient temperature (T4) Heating if T4 < 13 °C Cooling if T4 > 18 °C Continue last time operation if 13 °C ≤ T4 ≤ 18 °C
Cooling or Heating priority mode	During heating operation: the indoor unit requests cooling – the outdoor unit stops and restarts cooling. During cooling operation: the indoor unit requests heating – the outdoor unit ignores the request and continues cooling.
Lock cooling mode	The outdoor unit operates in cooling mode only.
Lock heating mode	The outdoor unit operates in heating mode only.
Voting priority mode (Majorities requirement)	The outdoor unit operates in the heating or cooling mode requested by the larger number of indoor units.
Voting priority mode (capacity)	The outdoor unit operates in the heating or cooling mode requested by the biggest capacity of indoor units.
VIP priority mode (default address No. 63)	The VIP indoor unit operates – the outdoor unit operates in the mode of the VIP indoor unit.
First on priority mode	The outdoor unit operates in the mode of the indoor unit (first open in the system). In the meantime indoor units, which are in a mode different to that of the first open unit, will display the mode conflict error(E0).
Changeover mode	Before using this mode, you need to set the VIP indoor unit address. The default VIP address is 63,the VIP address also can be changed through menu mode“n1-6”. In changeover mode, if the VIP indoor unit is operating, the outdoor units will operate in the mode of the VIP indoor unit. The other units in the system will follow the mode of the VIP indoor unit, so there will be no mode conflict. In the changeover mode, the VIP indoor unit can select the auto mode, so that the system can run the auto mode, andother indoor unit can follow the VIP indoor unit without mode conflict.

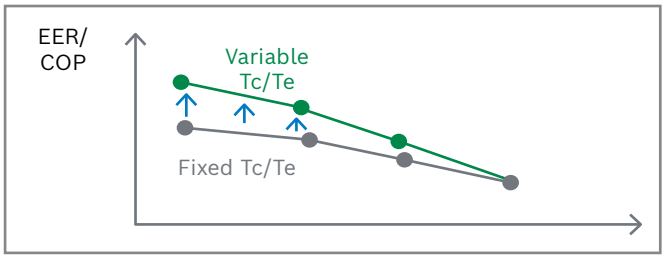
Smart Energy Management

Smart Automatic Refrigerant Temperature Control:

The evaporation temperature (in cooling) and condensation temperature (in heating) are automatically adjusted according to both indoor and outdoor temperature to maximize the comfort and energy efficiency.
Also manual setting is possible at outdoor unit in case needed (see table).



Tc: condensing temperature
Te: evaporating temperature



First level menu	Second level menu	Specified menu mode	Desciption	Default
n6 (evaporation and condensation temperature)	0 (target evaporation temperature of the indoor unit)	0	-3 °C	–
		1	0 °C	
		2	3 °C	
		3	6 °C	✓
		4	7 °C	–
		5	8 °C	
		6	9 °C	
		7	10 °C	
		8	11 °C	
	2 (target condensation temperature of the indoor unit)	0	41 °C	–
		1	42 °C	
		2	43 °C	
		3	44 °C	
		4	45 °C	
		5	46 °C	
		6	48 °C	✓
		7	51 °C	–

Features – Air Flux 5301A (C)

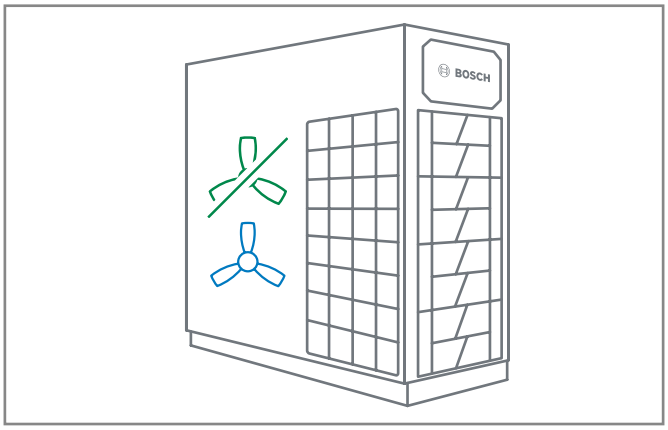
Multi Backup

Unit Backup

- Continue operating in case of a failure of one unit.
- For cascaded systems only

Fan Backup

- Continue operating in case of failure of one fan.
- For units with more than one fan

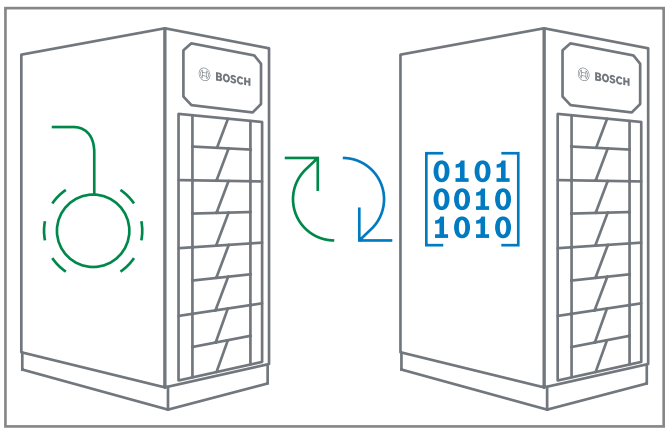


Compressor Backup

- Continue operating in case of failure of one compressor.
- For units with more than one compressor

Sensor Backup

- AF5301A (C) system generates a virtual sensor for each corresponding physical sensor by means of a digital algorithm, which serves as a backup of each other, ensuring no shutdown in case of a fault, ensuring comfort.



Technical Data – Air Flux 5301A (C)

Model			AF5301A (C) 25-3	AF5301A (C) 28-3	AF5301A (C) 33-3	AF5301A (C) 40-3	AF5301A (C) 45-3
Power supply		**V/N/Hz**	400/3/50				
Cooling	**Rated capacity**[1]	**kW**	25.2	28	33.5	40	45
	SEER[2]		7.55	7.45	7.31	7.35	7.00
Heating	**Rated capacity**[1]	**kW**	25.2	28	33.5	40	45
	SCOP[2]		4.46	4.48	4.42	4.39	4.40
Indoor units installed	**Total capacity**	**%**	50 - 130 (200 % for single units)				
	Maximum quantity	**pcs**	13	16	19	23	26
Sound pressure level[3]		**dB(A)**	58	58	61	63	65
Sound power level		**dB**	83	84	85	86	
Power input[4]	**MCA**	**A**	17	18.8	23	26.2	31,4
	MFA	**A**	20.7	25	32	32	40
Piping connection	**Liquid**	**mm-in.**	ø 12.7 - 1/2"			ø 15.9 - 5/8"	
	Gas	**mm-in.**	ø 25.4 - 1"			ø 28.6 - 1"1/8	
Fan motor	**Type**		DC				
	Quantity	**pcs**	1				
	Air flow rate	**m^3/h**	12,600		13,500	15,600	
	Motor output	**W**	560			920	
	ESP	**Pa**	0-20				
DC inverter scroll compressor	**Maximum quantity**		1				
	Oil type		FV68H				
Overall dimensions (W x H x D)		**mm**	940 x 1,760 x 825				
Net weight		**kg**	195			218	
Gross weight		**kg**	213			236	
Operating temperature range	**Cooling**	**°C**	-15/+55				
	Heating	**°C**	-30/+30				
Data related to EU F-gas Regulation 517/2014							
Environmental information			Contains fluorinated greenhouse gases				
Refrigerant type			R410A				
GWP index	**Global warming**	**$kgCO_2$-eq**	2,088				
Factory charging		**kg**	7			8	
Amount of refrigerant		**tCO_2-eq**	14,616			16,704	
Refrigerant circuit design			Not hermetically sealed				

[1] Rated capacities are measured according to EN 14511.
[2] With cassette indoor units.
[3] Sound pressure levels are measured in a anechoic room, 1 m in front of the unit and 1.3 m above the floor.
[4] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.

Technical Data – Air Flux 5301A (C)

Model			AF5301A (C) 50-3	AF5301A (C) 56-3	AF5301A (C) 62-3	AF5301A (C) 67-3
Power supply		**V/N/Hz**	400/3/50			
Cooling	**Rated capacity[1)]**	**kW**	50	56	61.5	67
	SEER[2)]		7.10	6.80	6.70	6.30
Heating	**Rated capacity[1)]**	**kW**	50	56	61.5	67
	SCOP[2]		4.45	4.30	4.45	4.40
Indoor units installed	**Total capacity**	**%**	50 - 130 (200 % for single units)			
	Maximum quantity	**pcs**	29	33	36	39
Sound pressure level[3)]		**dB(A)**	65	66		67
Sound power level		**dB**	88	89		92
Power input[4)]	**MCA**	**A**	33	40.5	41.5	46
	MFA	**A**	40	50	50	63
Piping connection	**Liquid**	**mm-in.**	ø 15.9 - 5/8"			
	Gas	**mm-in.**	ø 28.6 - 1"1/8			
Fan motor	**Type**		DC			
	Quantity	**pcs**	2			
	Air flow rate	**m^3/h**	22,000		21,500	
	Motor output	**W**	560 + 560			
	ESP	**Pa**	0-20			
DC inverter scroll compressor	**Maximum quantity**		1			
	Oil type		FV68H			
Overall dimensions (W x H x D)		**mm**	1,340 x 1,760 x 825			
Net weight		**kg**	277		297	
Gross weight		**kg**	297		317	
Operating temperature range	**Cooling**	**°C**	-15/+55			
	Heating	**°C**	-30/+30			
Data related to EU F-gas Regulation 517/2014						
Environmental information			Contains fluorinated greenhouse gases			
Refrigerant type			R410A			
GWP index	**Global warming**	**$kgCO_2$-eq**	2,088			
Factory charging		**kg**	9.3		11.98	
Amount of refrigerant		**tCO_2-eq**	19,418		25,014	
Refrigerant circuit design			Not hermetically sealed			

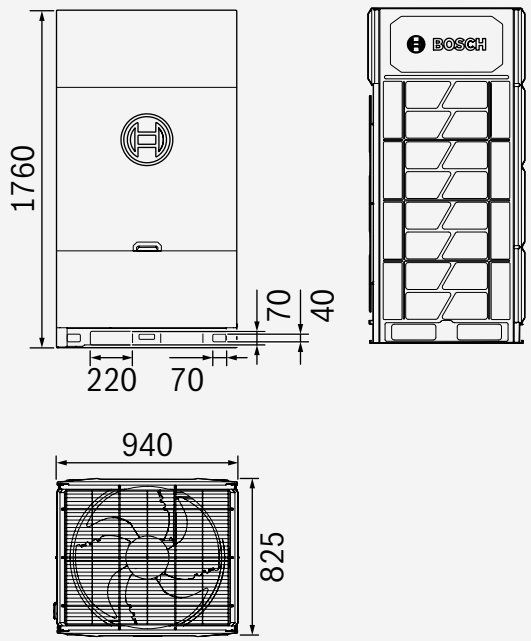
[1)] Rated capacities are measured according to EN 14511.
[2)] With cassette indoor units.
[3)] Sound pressure levels are measured in a anechoic room, 1 m in front of the unit and 1.3 m above the floor.
[4)] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.

Model			AF5301A (C) 73-3	AF5301A (C) 79-3	AF5301A (C) 85-3	AF5301A (C) 90-3
Power supply		**V/N/Hz**	400/3/50			
Cooling	**Rated capacity**[1]	**kW**	73	78.5	85	90
	SEER[2]		5.80	6.40	6.25	6.11
Heating	**Rated capacity**[1]	**kW**	73	78.5	85	90
	SCOP[2]		4.32		4.25	
Indoor units installed	**Total capacity**	**%**	50 - 130 (200 % for single units)			
	Maximum quantity	**pcs**	43	46	50	53
Sound pressure level[3]		**dB(A)**	68			
Sound power level		**dB**	93			
Power input[4]	**MCA**	**A**	48	51	56.8	57
	MFA	**A**	63	63	80	80
Piping connection	**Liquid**	**mm-in.**	ø 22.2 - 7/8"			
	Gas	**mm-in.**	ø 31.8 - 1"1/4	ø 34.9 - 1"3/8		
Fan motor	**Type**		DC			
	Quantity	**pcs**	2			
	Air flow rate	**m^3/h**	29,000	28,000		
	Motor output	**W**	920 + 920			
	ESP	**Pa**	0-20			
DC inverter scroll compressor	**Maximum quantity**		2			
	Oil type		FV68H			
Overall dimensions (W x H x D)		**mm**	1,880 x 1,760 x 825			
Net weight		**kg**	373	410		
Gross weight		**kg**	398	435		
Operating temperature range	**Cooling**	**°C**	-15/+55			
	Heating	**°C**	-30/+30			
Data related to EU F-gas Regulation 517/2014						
Environmental information			Contains fluorinated greenhouse gases			
Refrigerant type			R410A			
GWP index	**Global warming**	**$kgCO_2$-eq**	2,088			
Factory charging		**kg**	11.98			
Amount of refrigerant		**tCO_2-eq**	25,014			
Refrigerant circuit design			Not hermetically sealed			

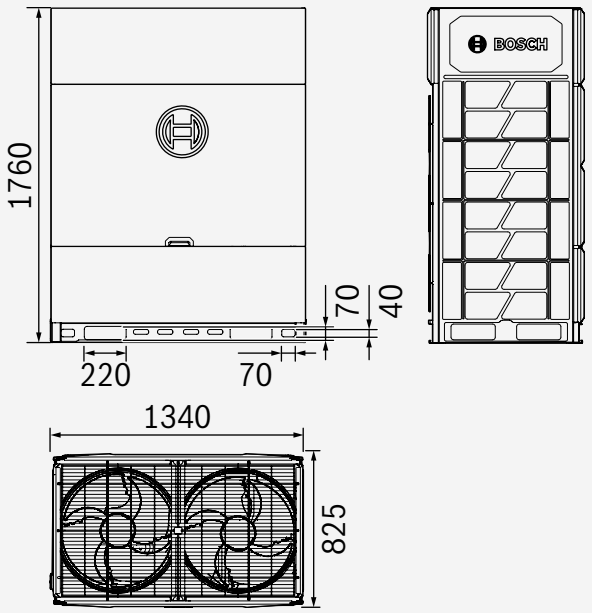
[1] Rated capacities are measured according to EN 14511.
[2] With cassette indoor units.
[3] Sound pressure levels are measured in a anechoic room, 1 m in front of the unit and 1.3 m above the floor.
[4] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.

Technical Drawings and Installation Dimensions

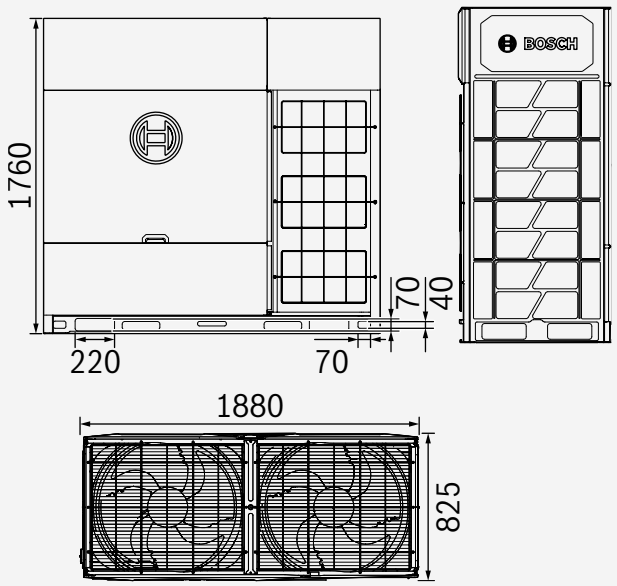
Dimensions Air Flux 5301A (C) up to 45 kW in mm



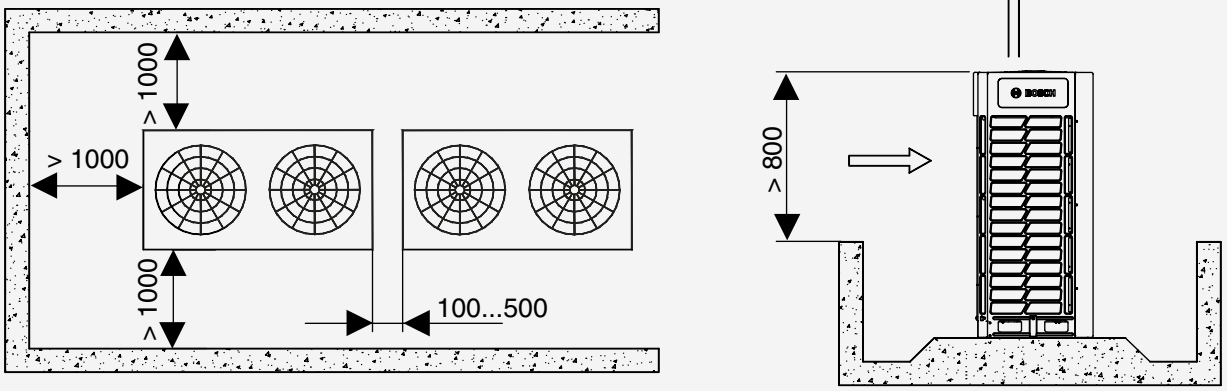
Dimensions Air Flux 5301A (C) 50 ... 67 kW in mm



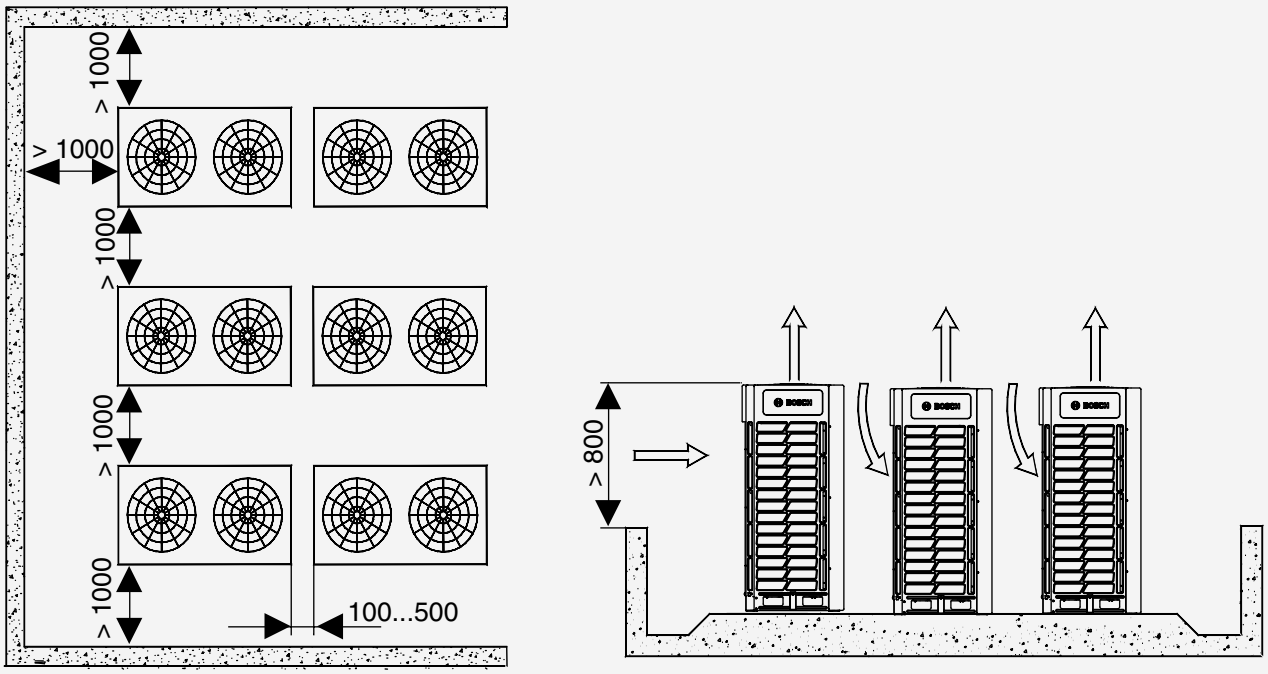
Dimensions Air Flux 5301A (C) 73 ... 90 kW in mm



Installation dimensions Air Flux 5301A (C) in mm – Several units side by side



Installation dimensions Air Flux5301 A (C) in mm – Several units facing each other



Accessory for Air Flux 5301A (C)

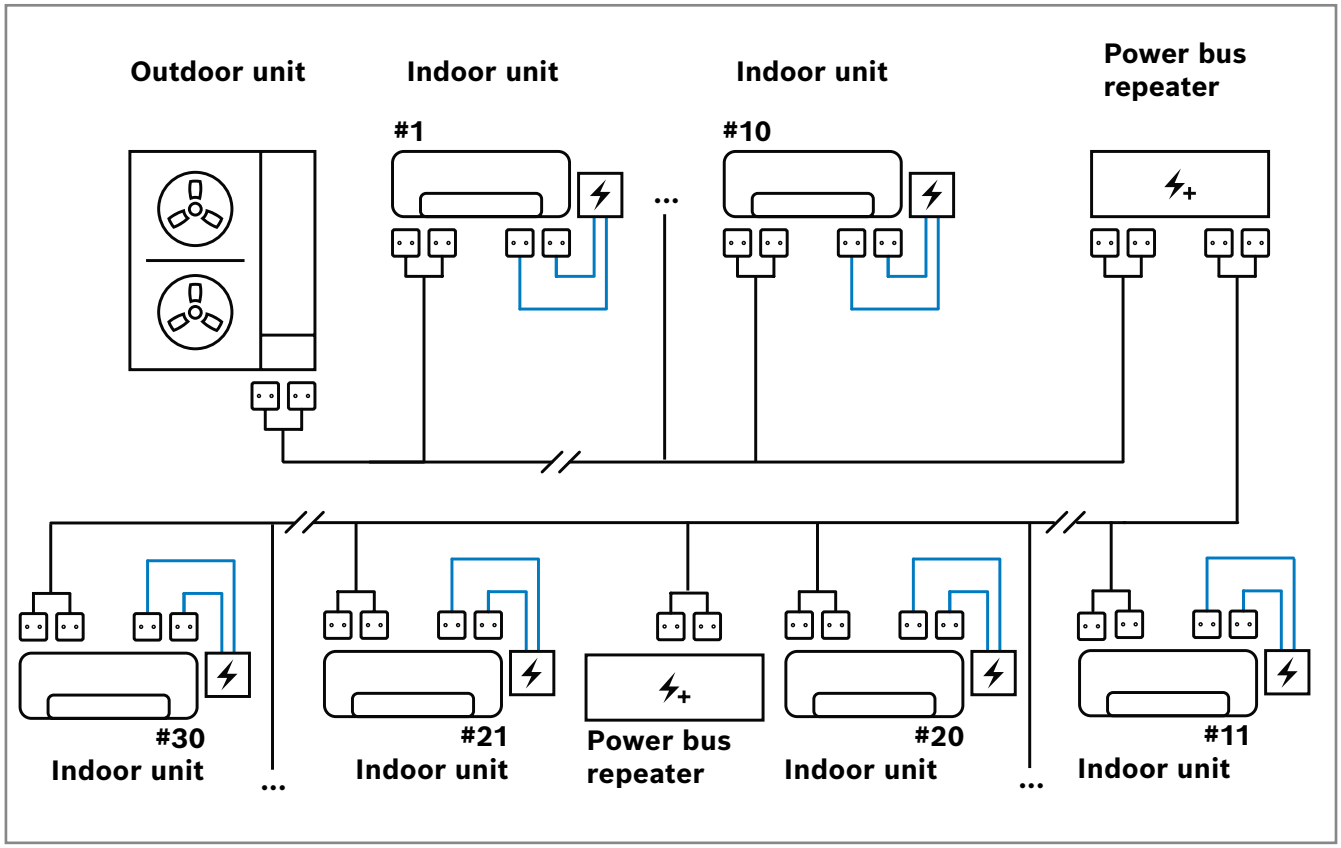
Power bus repeater AF2-PBR for AF5301A (C)

Needed if:
- Total cable length is > 200 m
- More than 10 IDU are connected
- Maximum 2 repeater per system
- Indoor units have individual power supplies

Main function:
- Strengthen the communication line of air conditioning system

Product material:
- Including a PCB with plastic cover

Power supply:
- 230 V, 50 Hz, 1-ph




BOSCH
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Air Flux 6300A C Outdoor Unit

Various solutions for every application

Highlights

- Highly efficient system thanks to heat recovery
- Simultaneous cooling, heating and domestic hot water
- Heating mode up to -25 °C outside temperature
- Output of 22 kW to 50 kW (as cascade up to 150 kW)
- Domestic hot water heating up to 80 °C
- Highly efficient with an SEER of up to 7.3 and a SCOP of up to 4.6
- Various switch boxes (SBOX) with up to 60 indoor units and leakage detection (AF-SB 01-1L)

Efficiency data will be updated as soon as the values are available.

Air Flux AF6300A C is a three-pipe VRF system. Together with the Hydro Box and the different switch boxes (SBOX), the AF6300A C provides solutions for every application in combination with the Air Flux indoor units. Cooling, heating and domestic hot water production in just one system – even simultaneously!

Simply efficient

With the Air Flux 6300A C system, Bosch offers the option of generating hot water, alongside simultaneous cooling and heating. In this application, waste heat from the areas to be cooled can be used for domestic hot water generation, which makes the system extremely efficient

Simply flexible

Piping lengths of up to 1000 m and a height difference of up to 110 m between the indoor and outdoor units allow for use even in large buildings. The system also offers the option of cooling and heating simultaneously, which makes needs-based indoor climate control possible, especially in hotels or north-south-facing buildings. It is also possible to generate hot water in parallel with the cooling and heating mode – meaning individual needs can always be met.

Simply reliable

As is the case with the AF 5301A (C) series Air Flux appliances, the AF 6300A C series features various control and safety systems. In combination with the SBOX01-1L switch box is also possible to adapt an automatic leakage detection.

Simply quiet

Quiet outdoor units with only 58 dB(A) sound pressure level (22 kW and 28 kW). It is possible to reduce the sound pressure level during the night. It is also possible, in “Super Silent Mode“, to reduce the sound pressure level by up to 8 dB(A).

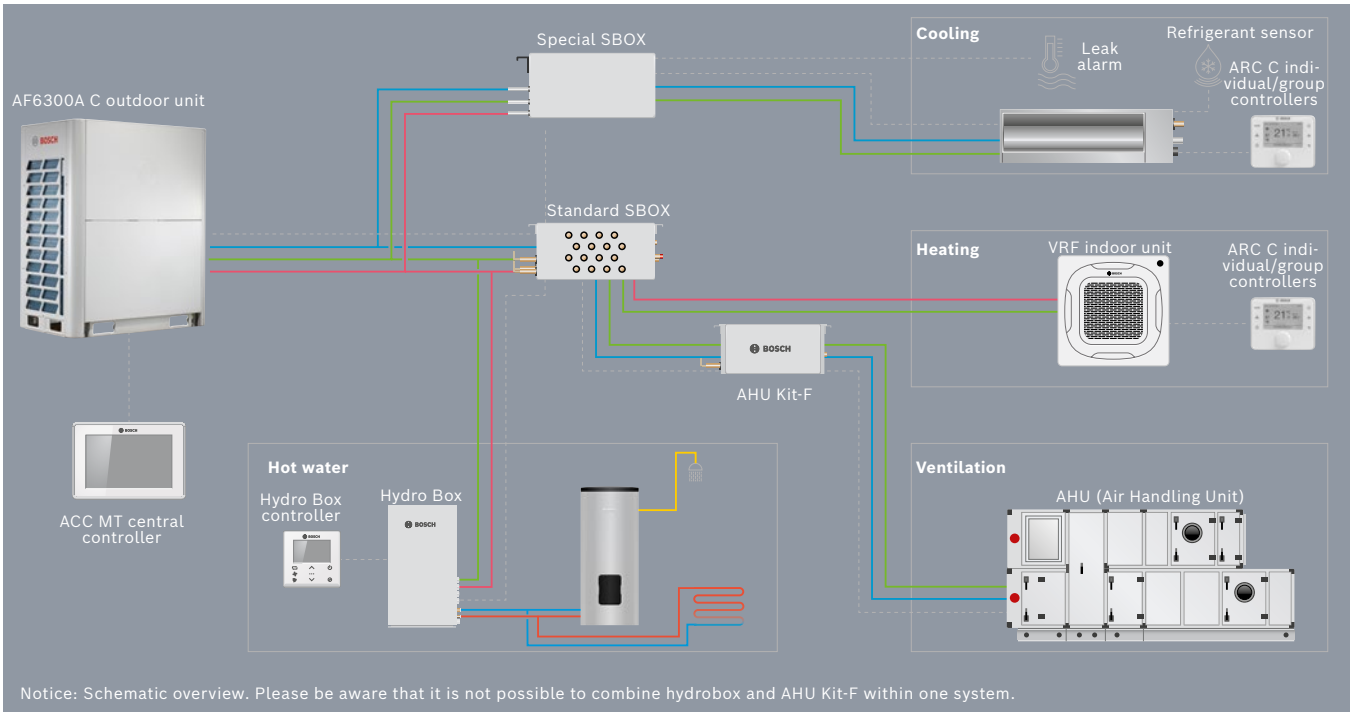
Simply plan

Different models, which can be individually cascaded, allow finely staged adjustment to the required cooling capacity. The exceptionally long maximum permitted piping length also enables the system hydraulics to be flexibly designed. In addition to the six different SBOX types, all well-known types of indoor unit from the Air Flux series can also be combined with this system.

Simple service

The sophisticated technology reduces the need for service work. This pays off for the end user and improves the availability of the system. Self-cleaning functions for clearing dust and snow extend the service life and reduce maintenance costs.

Cooling, heating, hot water and ventilation – all requirements covered within one system



Notice: Schematic overview. Please be aware that it is not possible to combine hydrobox and AHU Kit-F within one system.

Features – Air Flux 6300A C

All Air Flux 6300A C models are cascadable but can also used as stand alone models. Single Moduls has a capacity of up to 50 kW. It is possible to cascade 3 units to reach a system capacity of 150 kW in total.

Line-Up

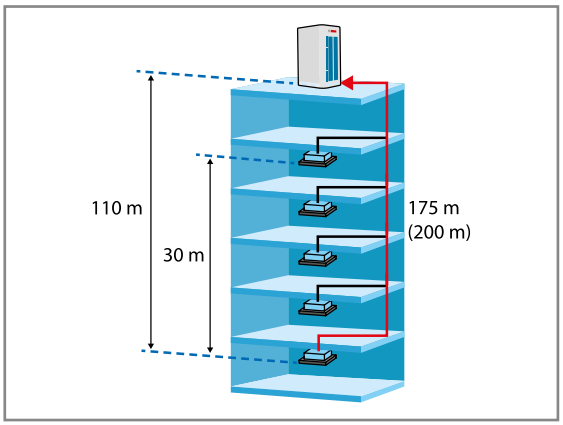
kW	22.4, 28, 33.5	40, 45, 50	56 - 100	106 - 150
				

System	Total combination ratio	Allowed combination ratio		
		VRF indoor units	Hydro Box	AHU Kit
VRF indoor units only	50 - 200 % (Single) 50 - 150 % (2 units combination) 50 - 130 % (3 units combination)	50 - 200 % (Single) 50 - 150 % (2 units combination) 50 - 130 % (3 units combination)	/	/
VRF indoor units + HT Hydro Box	50 - 200 %	50 - 130 %	0 - 100 %	/
VRF indoor units + AHU Kits	50 - 100 %	50 - 100 %	/	0 - 50 %

- 6 different models with a capacity up to 50 kW
- Combination of 3 outdoor units up to 150 kW
- Combination ratio min. 50 %, max. 200 %
- 380 - 415 V, 50 Hz, triphase
- CE and Eurovent certified

Maximum Piping Lengths (m)

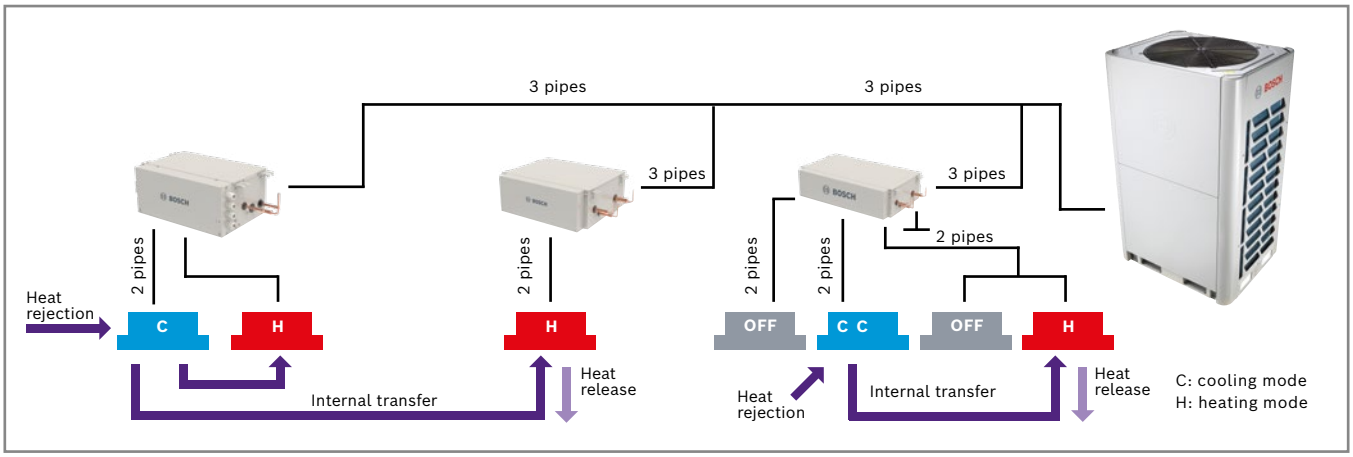
1000	Total piping length
175	Maximum actual piping length
200	Maximum equivalent piping length
90	Maximum piping length after first branch
40	Maximum piping between SBOX and indoor unit
110	Max. level difference between IDU-ODU (ODU above)
	Max. level difference between IDU-ODU (ODU below)
30	Level difference between indoor units



Indoor type	Maximum piping length (m)		Maximum height difference (m)		Total piping length (m)
	Between farthest indoor units and outdoor unit (Equivalent)	Piping between farthest indoor unit and first indoor branch joint	Between indoor and outdoor unit Outdoor unit is above/ below	Between indoor units	
VRF indoor units only	175 (200)	90	110/110	30	1000
VRF indoor units and HT Hydro Boxes	135 (160)	40	50/40	30	600
VRF indoor units and AHUs	175 (200)	40	50/40	30	1000

Modern and Efficient – The Heat Recovery System

A typical heat recovery system consists of outdoor unit(s), switch box(es) (SBOX) and indoor units, as well the copper piping and joints. System offers high energy-saving efficiency by using heat from the rooms to be cooled and effectively using it as a heat source for the rooms to be heated.



Your Choice: Pure or Mixed Cooling and Heating

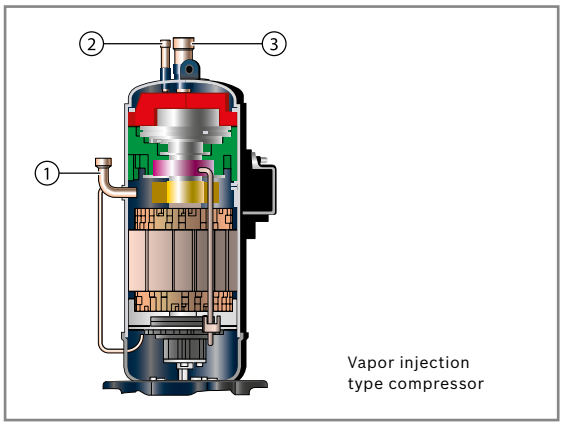
	Cooling mode	Heating mode	Main cooling	Main heating
Outdoor temperature	-5 (-15[1]) - 52 °C (DB)	-25 - 19 °C (WB)	-5 (-15[1]) - 27 °C (DB)	-5 (-15[1]) - 19 °C (WB)
Indoor temperature	15 - 24 °C (WB)	15 - 30 °C (WB)	Cooling: 15 - 27 °C (WB) Heating: 15 - 30 °C (DB)	Cooling: 15 - 24 °C (WB) Heating: 15 - 30 °C (DB)
Indoor humidity	≤ 80%[2]			

DB - Dry bulb / WB - Wet bulb

Note:
Operation range is valid when connected with only VRF indoor units. Operation range will change if a Hydro Box is connected. For further information please refere to technical databook.

[1] -15 °C cooling is only possible with AF-SB 01-1 L model (refrigerant leakage type SBOX), connecting this SBOX enables evaporation temperature is higher than 0 °C.
[2] Condensation will ocur on unit surface and water dripping out of the unit when indoor ambient humidity is over 80 %.

Improved Heating Capacity



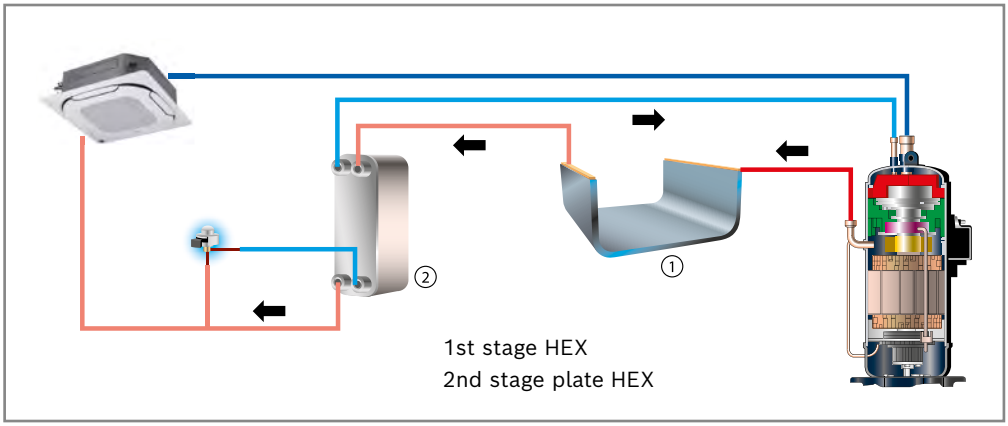
- Increased heating performance by 20 % in average for outdoor temperatures below +7 °C
- Stable operation down to -25 °C
- Improved heating capacity at lower temperatures down to -15 °C
- Vapor injection type compressor – efficient sub-cooling without loss during cooling operation

High-pressure refrigerant discharge
Gas vapor injection
Low-pressure refrigerant suction

Features – Air Flux 6300A C

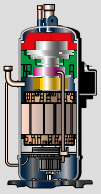
Two Stage Sub Cooling – Higher Efficiency

- Subcooling increasement and energy efficiency improvement by 10 % with the plate heat exchanger as secondary intercooler
- Reduction of refrigerant pressure loss
- Lower refrigerant flow noise
- Better refrigerant distribution



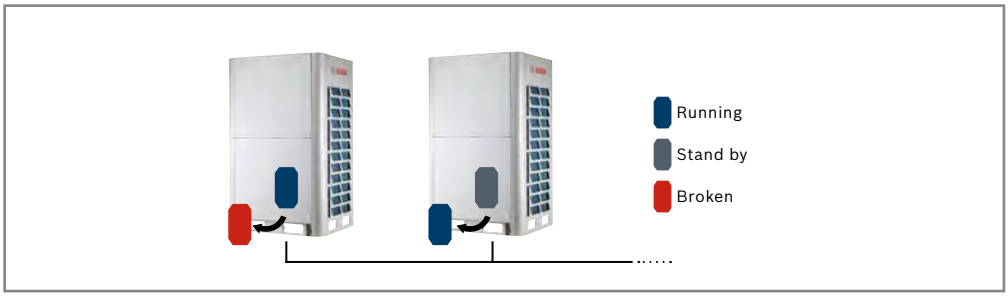
Precise Oil Control Technology

The three-stage oil control technology keeps the compressor oil of the outdoor unit always at a safe level, preventing compressor oil problems.

Stage		Function
Compressor internal oil separation		Significant oil circulation rate reduction.
High-efficiency centrifugal oil separator		Oil separation from the discharged gas (efficiency of up to 99%) and return to the compressor.
Auto oil return programme		Auto oil return programme - monitoring of run time and system status for reliable oil return.

Compressor Back-up – High Level of Reliability

In a multi-unit system, if one module fails, other modules can provide backup operation.



Compressor Duty Cycling

The duty cycling equalizes the operating time of the outdoor units in a multi-unit system as well as the compressors in each unit which leads to a significant extended compressor service life.

1st Cycle

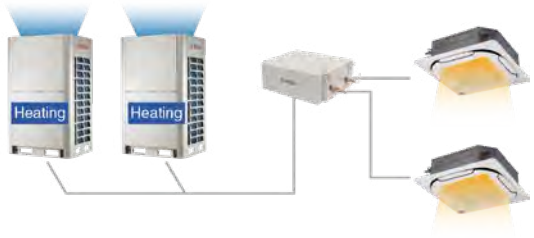
2nd Cycle

3rd Cycle

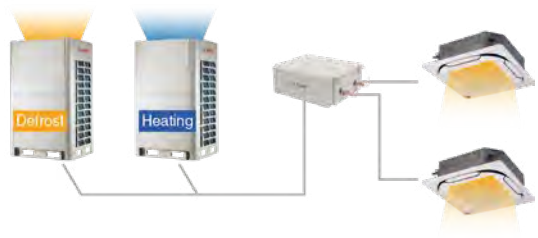
Continuous Heating During Defrost

Usually, the outdoor unit stops normal heating operation during defrost operation. However, the continuous heating operation function allows defrosting while heating operation continues. In cascaded applications (2 outdoor units or 3 outdoor units), the units perform defrosting alternately. While one unit is defrosting, the other unit continues to heat.

Normal Heating Operation



Continuous Heating Operation

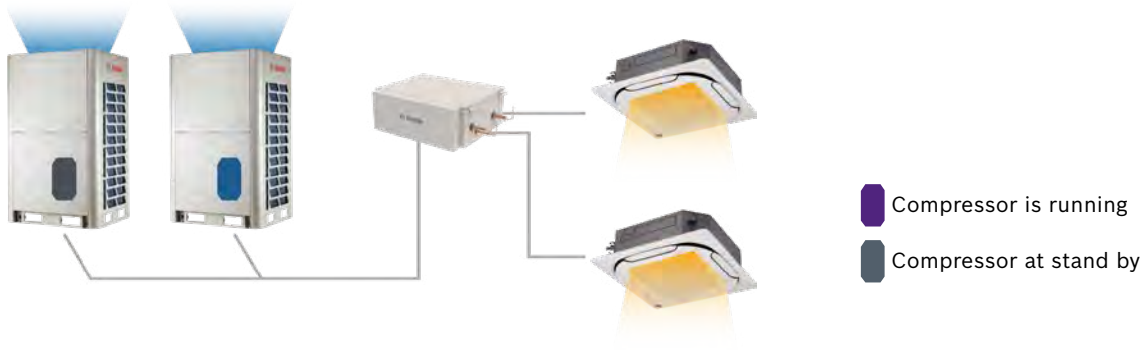


Features – Air Flux 6300A C

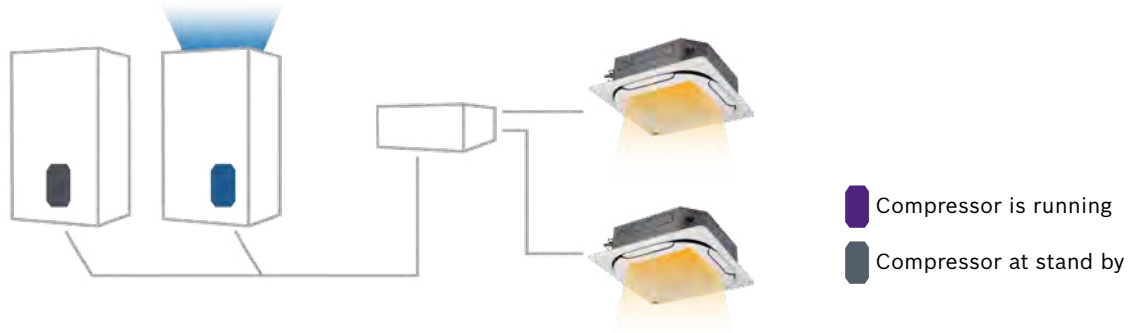
Independent Control of Heat Exchanger and Compressor

In cooling or heating mode, in a multi-unit system, the outdoor unit‘s heat exchanger (HEX) and the compressor are controlled independently to improve energy efficiency. Even if the outdoor unit‘s compressor is not running, the outdoor unit‘s heat exchanger can be used for heat transfer. This function maximises the heat exchanger area of the outdoor unit and improves efficiency.

Air Flux 6300



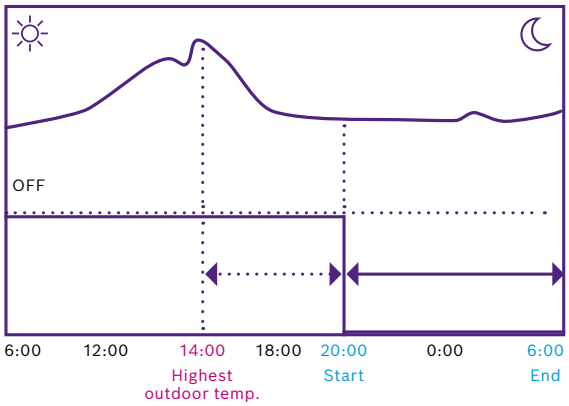
Other brands



Multi Silent Mode

- 6 different silent modes provide flexibility at different types of projects.
- For all modes, fan speed and compressor frequency is limited to certain values to reduce sound levels.

Mode	Description	Sound reduction	Capacity output
0	Night silent mode, time 6h/10h	4 dB(A) lower	85 %
1	Night silent mode, time 6h/12h	4 dB(A) lower	85 %
2	Night silent mode, time 8h/10h	4 dB(A) lower	85 %
3	Night silent mode, time 8h/12h	4 dB(A) lower	85 %
4	No silent mode	–	100 %
8	Silent mode 1	4 dB(A) lower	85 %
A	Super silent mode 2	8 dB(A) lower	75 %



Soundlevel
Judgment time 6 hrs
Low-noise operation time 10 hrs
Max. 8 dB(A) reduction

Cleaner, safer, quieter – Auto Cleaning and Capacity Output Limitation

Auto Dust Cleaning

The Auto dust cleaning function of the outdoor unit helps to protect the heat exchanger from dust – or other contamination which leads to less manual cleaning demand.
The maintained system works with high efficiency, as installed on the first day and functions reliably.

Auto Snow Blowing

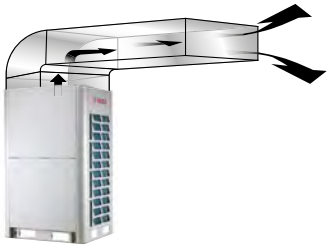
The auto snow function protects the outdoor unit snow – the fans start automatically for a short period of time to blow the snow away.
This setting is controlled via dip switch on the outdoor unit‘s PCB.

For energy saving – the capacity output can be reduced from 100 % to 40 % e.g. in case of emergency power supply.

Digital display code	Menu mode	Remarks
n41	Power limitation mode 1	100 % capacity output
n42	Power limitation mode 2	90 % capacity output
n43	Power limitation mode 3	80 % capacity output
n44	Power limitation mode 4	70 % capacity output
n45	Power limitation mode 5	60 % capacity output
n46	Power limitation mode 6	50 % capacity output
n47	Power limitation mode 7	40 % capacity output

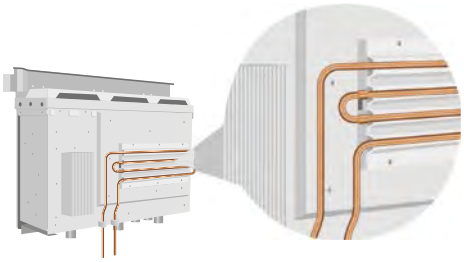
External Static Pressure up to 80 Pa

The outdoor unit overcomes an external static pressure of up to 80 Pa. This allows to install the units e.g. floor by floor with louvre application or to install long air ducts if needed. The pressure setting is controlled via dip switch on the outdoor unit‘s PCB – selection of 20, 40, 60 and 80 Pa. The default setting is 0 Pa.



Improved PCB Cooling

The double U-shape refrigerant pipe decreases the IPM (Intelligent power module) temperature for reliable operation. Compared with single U-shape refrigerant pipe, the PCB temperature is 5 ℃ lower. Compared with the air cooling method, the PCB temperature is 10 ℃ lower.



Remote Stop / Alarm

The AF6300A C outdoor units have two dry contacts which work by 12 V for input and 230 V for output signal. The input dry contact can be used to receive a remote emergency stop signal and the output dry contact can be connected to an external alarm signal.

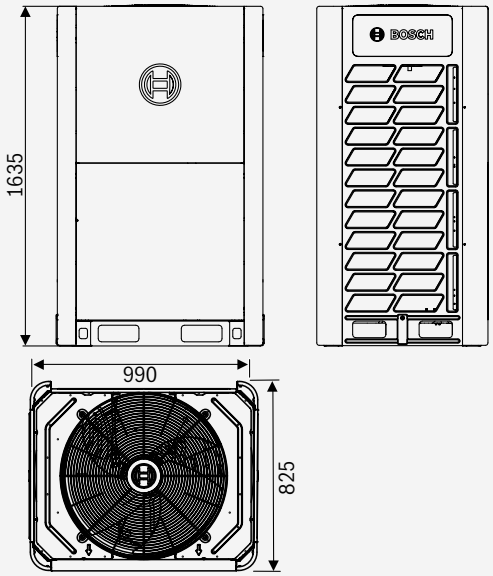
Technical Data – Air Flux 6300A C Combination Series

Model			AF6300A 22 C-3	AF6300A 28 C-3	AF6300A 33 C-3	AF6300A 40 C-3	AF6300A 45 C-3	AF6300A 50 C-3
Power supply		**V/Ph/Hz**	380 - 415/3/50					
Cooling	**Rated capacity**[1]	**kW**	22.4	28	33.5	40	45	50
	SEER		7.3	6.6	6.8	6.7	6.4	6.2
Heating	**Rated capacity**[1]	**kW**	22.4	28	33.5	40	45	50
	SCOP		4.3	4.4	4.6	4.3	4.3	4.4
Indoor units can be connected	**Combination ratio**	**%**	50 - 200					
	Maximum quantity	**pcs**	26	32	39	47	52	58
Sound pressure level[2]		**dB(A)**	58	61	62	63	64	65
Sound power level		**dB**	78	82	83	84	88	
Power input[3]	**MCA**	**A**	24	25.2	26.4	33.1		40.8
	MFA	**A**	32			40		50
Piping connections	**Liquid**	**mm-in.**	ø 12.7 - 1/2"			ø 15.9 - 5/8"		
	Low pressure gas pipe	**mm-in.**	ø 25.4 - 1"			ø 28.6 - 1"1/8		
	High pressure gas pipe	**mm-in.**	ø 19.1 - 3/4"			ø 22.2 - 7/8"		
Fan	**Type**		DC inverter					
	Quantity	**pcs**	1			2		
	Air flow rate	**m^3/h**	9,000	9,500	10,000	14,000	14,900	15,800
	Motor output	**kW**	920			920 x 2	920 x 2	920 x 2
	External static pressure (ESP)	**Pa**	0/20/40/60/80					
Compressor vapor injection type scroll	**Quantity**	**pcs**	1					
	Oil type		FV68H					
Net dimensions (W x H x D)		**mm**	990 × 1635 × 825			1340 × 1635 × 825		
Net weight		**kg**	232			300		
Gross weight		**kg**	248			325		
Ambient operation range	**Cooling (min-max)**	**ºC (DB)**	-15 - 52					
	Heating (min-max)	**ºC (DB)**	-25 - 19					
Data related to EU F-gas Regulation 517/2014								
Environmental impact			Contains fluorinated greenhouse gases					
Refrigerant type			R-410A					
Global warming potential (GWP)		**$kgCO_2$-eq**	2088,000					
Amount of refrigerant		**kg**	8			10		
		tCO_2-eq	16,704			20,880		
Refrigerant cycle			Not hermetically sealed					

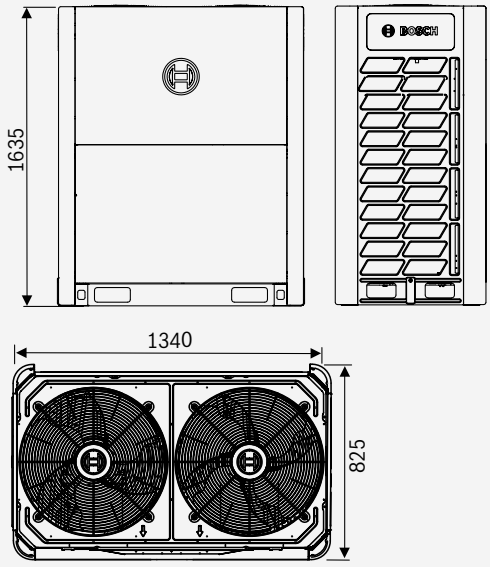
[1] Rated capacities are measured according to EN 14511.
[2] Sound pressure levels are measured in a anechoic room, 1 m in front of the unit and 1.3 m above the floor.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.

Technical Drawings and Installation Dimensions

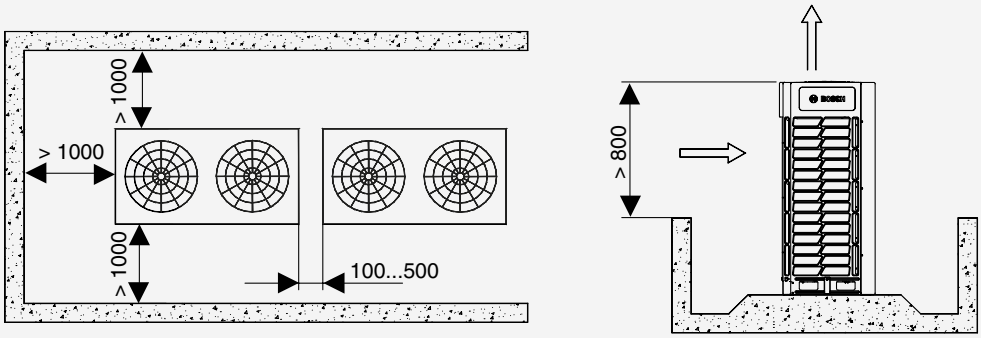
Dimensions Air Flux 6300A C up to 33 kW in mm



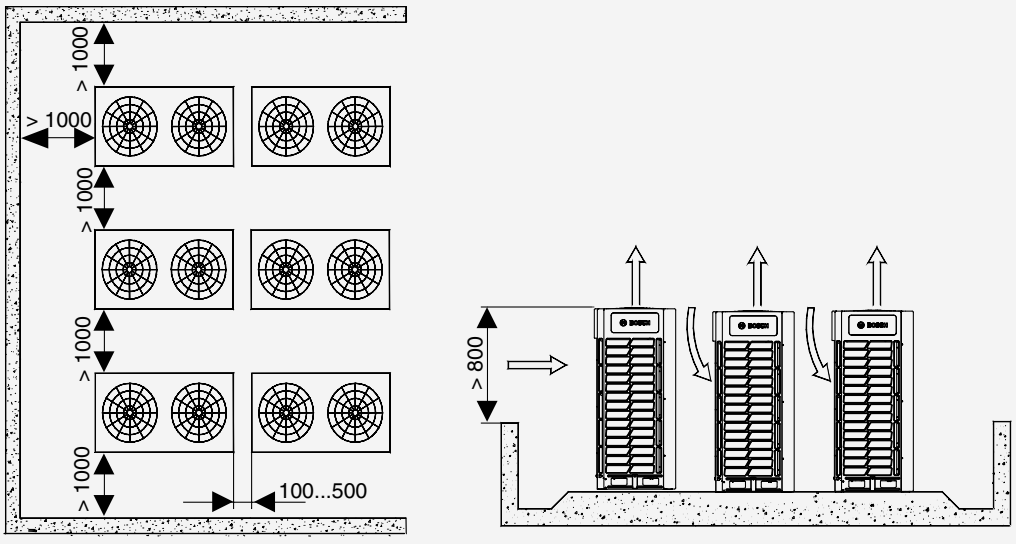
Dimensions Air Flux 6300A C 40 ... 50 kW in mm



Installation dimensions Air Flux 6300A C in mm – Several devices side by side



Installation dimensions Air Flux 6300A C in mm – Several devices facing each other



Required Accessory for Air Flux 6300A C

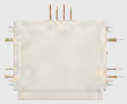
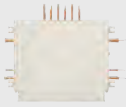
Switch box (SBOX) AF-SB

1-, 4-, 6-, 8-, 10-, 12-connection ports with up to 60 indoor units in total

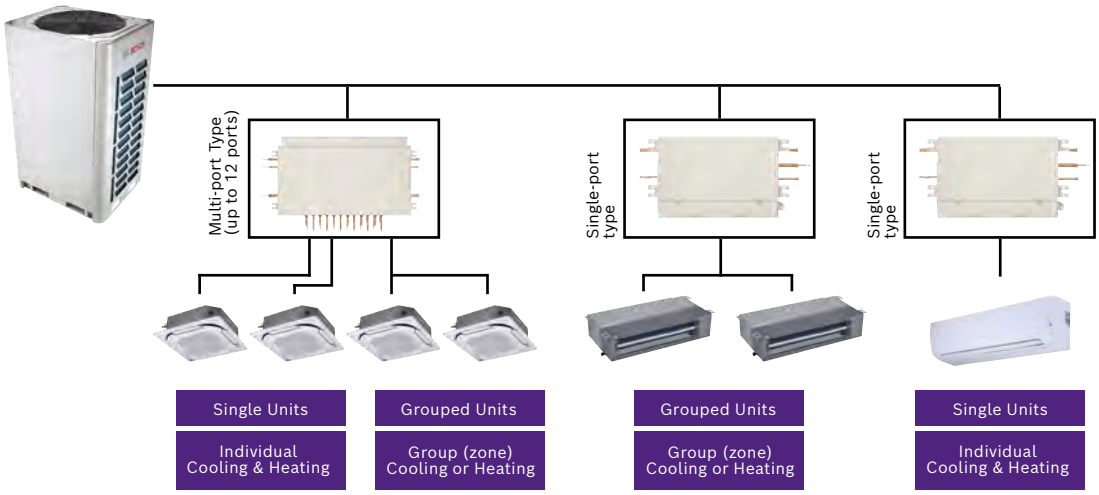
The Bosch Air Flux switch boxes (SBOX) supply refrigerant to each of the connected indoor units in the required aggregate state to be able to cool or heat independently of each other. In order to prevent indoor units (which e.g. are in the same room) working simultaneously in cooling and heating mode, several indoor units can be combined into groups – these are then always in the same operating mode.

- Compact
- Easy to install
- Up to 85 kW connected load per SBOX
- Up to 60 indoor units per SBOX total
- Up to 12 groups can be connected per SBOX
- Up to 5 indoor units per group (these are always in the same operating mode, cooling or heating)
- Up to 16 kW output per group
- Flat design 195 - 250 mm (depending on type)
- For AF-SB 01-1 L SBOX (only one group of indoor units with a maximum load of 32 kW can be connected, leakage detection in accordance with EN378 (corresponding detector necessary), enables cooling to -15 °C, no drain pipe needed)

Line-Up

Model	AF-SB 01-1 L	AF-SB 04-1	AF-SB 06-1	AF-SB 08-1	AF-SB 10-1	AF-SB 12-1
Number of ports	1	4	6	8	10	12
Max. units per port	8	5		5		
Max. capacity per port	32	16		16		
Max. capacity per box	32	49	63	85		
3D						
Top						

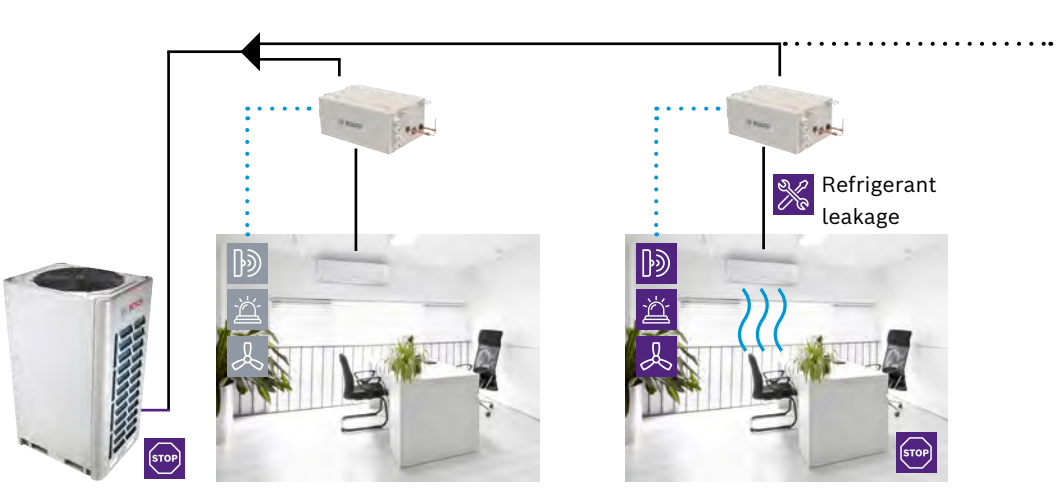
Range and Features – Overview



Note:
If several units are grouped at one port, a single heating/cooling zone is created and the units still operate independently of each other, no matter whether they are grouped at one room controller or individual controllers.

Refrigerant Leakage Detection

Outdoor unit monitors real-time refrigerant leakage in rooms and ensures safe and reliable operation in accordance with EN378.



Note:
Refrigerant leak detection function is available only for model AF-SB 01-1 L.
For more information please refer to the installation manual.

R-410A detection sensor (field supply)
Alarm (field supply)
Exhaust Fan (field supply)

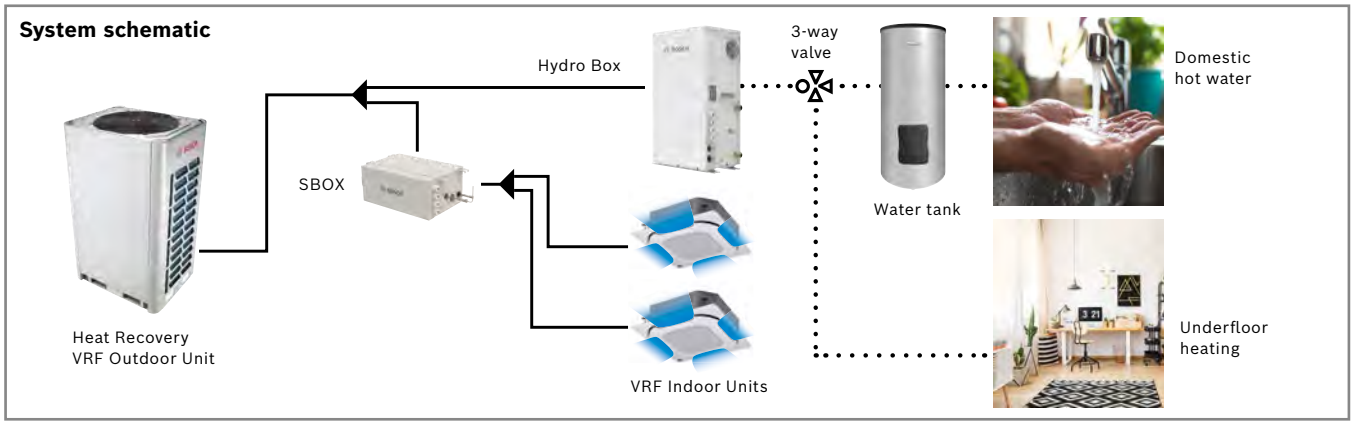
Complementary Product to Air Flux 6300A C

Hydro Box AF-HB 140-1

The Hydro Box AF-HB 140-1 is a hydraulic connection box for domestic hot water generation with the AF6300A series. The Hydro Box has a second refrigeration circuit (R-134a) incl. compressor. In a system with a Hydro Box, VRF indoor units (at least 50 % of the outdoor unit capacity) must also be connected.

- 14 kW output (A 7 °C/W 45 °C)
- Outlet water temperature from 25 to 80 °C
- Wide operating temperature range: -20 to +43 °C
- Up to 10 Hydro Boxes can be connected in cascade (total output 140 kW)
- Low investment costs (thanks to air conditioning and domestic hot water in one system)
- Low running costs (since heat from rooms to be cooled can be used for domestic water production)
- Very compact (H: 795 mm, W: 450 mm, D: 300 mm) and light (58 kg)
- Heat recovery at cooling from indoor units, free hot water
- No need for an additional electric heater
- Several hot water production scenarios
- Several functions including disinfection for legionella

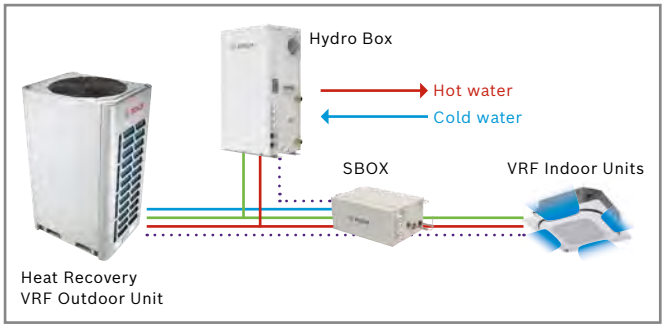
Hot Water Production

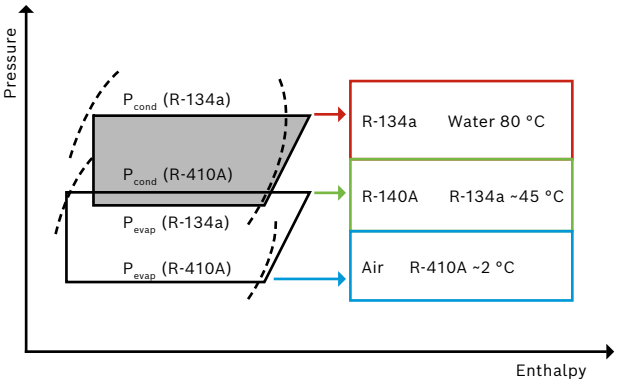


Note:
Please be aware that it is not allowed to use a Hydrobox as a monovalent heating system for hot water production as some operation scenarios can occur which will prevent a proper sterilization process.

2-Stage Refrigeration Cycle

The system has two compressors and two refrigerant circuits.



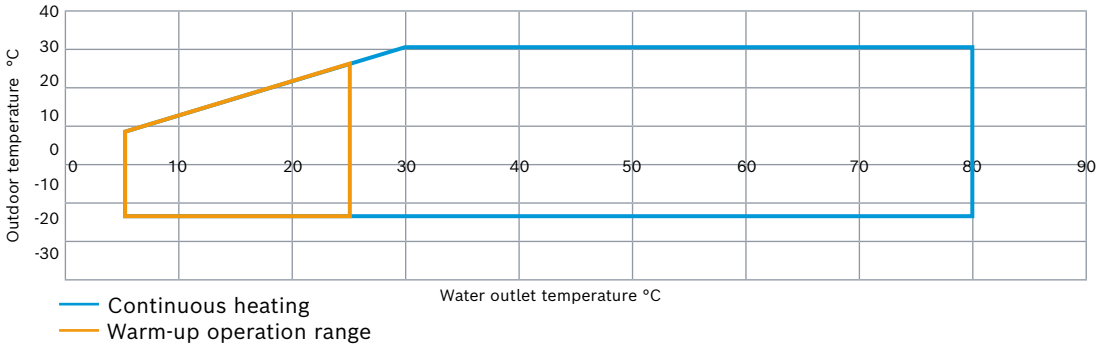


High pressure gas — Low pressure gas
Liquid ····· Signal wire

Low temperature stage:
The R410A circuit of the outdoor unit absorbs the heat from environment and release heat energy to the plate heat exchanger within the Hydro Box.
High temperature stage:
The R134a circuit of the Hydro Box absorbs heat from R-410A and heat energy to water.

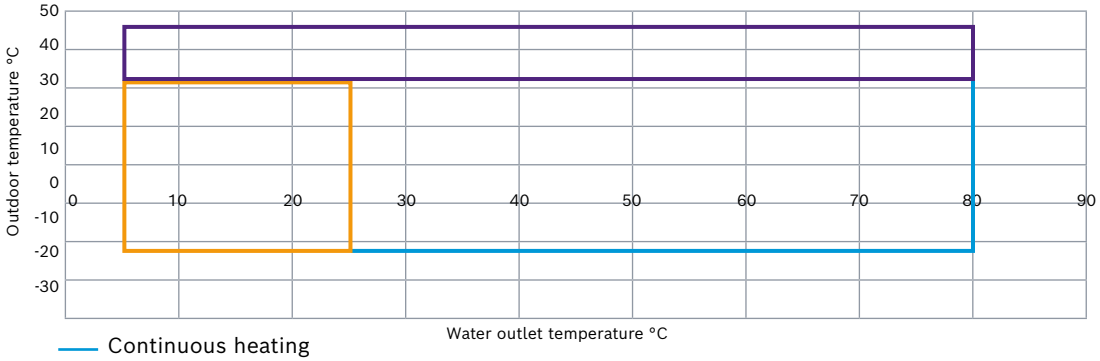
Operation Temperature Range

Heat Mode



Continuous heating
Warm-up operation range

DHW Mode

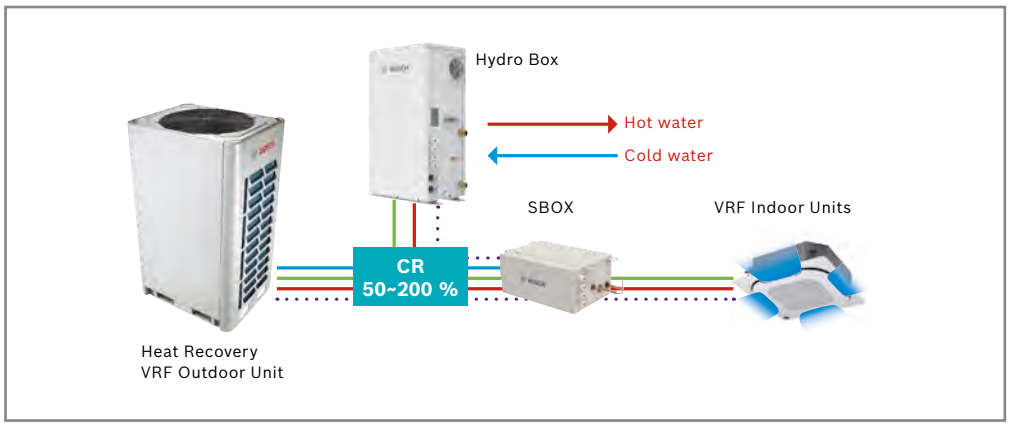


Continuous heating
Warm-up operation range
Main cooling operation range

Complementary Product to Air Flux 6300A C

Combination Ratio up to 200 %

In a system where indoor units are installed in combination with Hydro Box(es) the combination ratio can be up to 200 %.



High pressure gas
Liquid
Low pressure gas
Signal wire

Note:
A system must not contain of only Hydro Boxes. At least 50 % of outdoor unit capacity has to be connected as normal indoor units as well. If only the Hydro Box is connected, the problem of defrosting occurs and also oil return can become a problem. The Hydro Box can run independently of the heating when the indoor units are switched off.

Total ratio = Ratio Hydro Box + Ratio Indoor Unit(s)

Total ratio		Hydro Box ratio										
		0	10	20	30	40	50	60	70	80	90	100
Indoor units ratio	**0**											
	10											
	20											
	30											
	40											
	50	50	60	70	80	90	100	110	120	130	140	150
	60	60	70	80	90	100	110	120	130	140	150	160
	70	70	80	90	100	110	120	130	140	150	160	170
	80	80	90	100	110	120	130	140	150	160	170	180
	90	90	100	110	120	130	140	150	160	170	180	190
	100	100	110	120	130	140	150	160	170	180	190	200
	110	110	120	130	140	150	160	170	180	190	200	
	120	120	130	140	150	160	170	180	190	200		
	130	130	140	150	160	170	180	190	200			
	140											
	150											

- Total ratio Hydro Box + VRF indoor units: 50 - 200 %
- Total ratio of VRF indoor units when Hydro Box is installed: 50 - 130 %
- Total ratio of Hydro Box: 0 - 100 %
- Only Hydro Box connection is allowed?: NO
- Minimum VRF indoor unit total ratio: 50 %

Technical Data – Hydro Box AF-HB 140-1

		AF-HB 140-1
Heating capacity at rated water temperature 40/45 °C (inlet/outlet)	**kW**	14
Casing colour		polar white
Net dimensions (H × W × D)	**mm**	795 × 450 × 300
Unit weight	**kg**	63
Unit weight with packaging	**kg**	71
Water flow rate minimum/nominal/ maximum	**m³/h**	1.2/2.4/2.9
Piping connections diameter of water circuit (external groove)	**mm**	25.4/25.4
Design pressure for water	**MPa**	0.1 - 0.3
Design pressure for R-410A	**MPa**	4.0
Design pressure for R-134A	**MPa**	3.1
Pre-charged refrigerant R-134A amount	**kg**	1.2
Refrigerant pipe diameter (gas/liquid side)	**mm**	12.7/9.52
Pre-charged refrigerant oil FV50S	**l**	0.4
Nominal sound pressure level	**dB(A)**	43
Nominal sound power level	**dB(A)**	54
Outdoor temperature operation range for heating	**°C**	-20 - 30
Outdoor temperature operation range for domestic hot water	**°C**	-20 - 43
Permissible ambient temperature	**°C**	0 - 40
Water temperature range during operation	**°C**	25 - 80
Power supply	**V**	230
	Hz	50
Current MCA / MFA	**A**	16/20

General Precautions About the Water System

Check the following before beginning installation:

- Water pressure: 1 - 3 bar
- Water temperature: 5 - 80 °C

Install enough safety devices in the water loops to ensure that water pressure does not exceed the maximum operating pressure.

Water quality must be according to EU directive 98/83EC.

Parameter	Value
Acrylamide	0.10 µg/l
Antimony	5.0 µg/l
Arsenic	10 µg/l
Benzene	1.0 µg/l
Benzo(a)pyrene	0.010 µg/l
Boron	1.0 mg/l
Bromate	10 µg/l
Cadmium	5.0 µg/l
Chromium	50 µg/l
Copper	2.0 mg/l
Cyanide	50 µg/l
1.2-dichloroethane	3.0 µg/l
Epichlorohydrin	0.10 µg/l
Fluoride	1.5 mg/l
Lead	10 µg/l
Mercury	1.0 µg/l
Nickel	20 µg/l

Parameter	Value
Nitrate	50 mg/l
Nitrite	0.50 mg/l
Pesticides	0.10 µg/l
Pesticides – Total	0.50 µg/l
Polycyclic aromatic hydrocarbons	0.10 µg/l
Selenium	10 µg/l
Tetrachloroethene and Trichloroethene	10 µg/l
Trihalomethanes – Total	100 µg/l
Vinyl chloride	0.50 µg/l

Water hardness

The requirement is soft for Hydro Box and should be < 3.37 °dH.

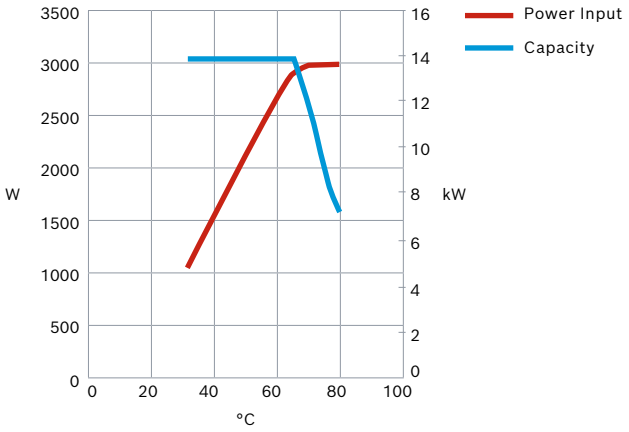
Hardness in	Value
mg-CaCO3/L	0 - 60
mmol/L	0 - 0.60
dGH/°dH	0 - 3.37
gpg	0 - 3.50
ppm	0 - 60

Technical Data – Hydro Box AF-HB 140-1

Heating Capacity and Power Input

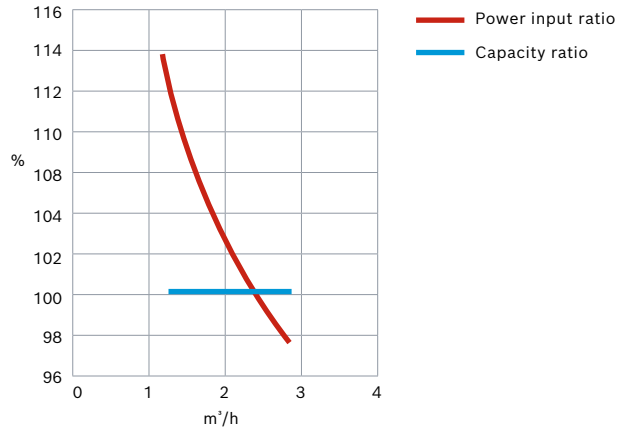
Depending on different water inlet temperatures (at constant water flow rate 2.4 m³/h)

Inlet water temperature (°C)	Heating capacity (kW)	Power input (W)
30	14	1.035
40	14	1.594
50	14	2.117
55	14	2.379
60	14	2.641
65	14	2.903
70	12	2.984
75	9	2.984



Depending on different water flow rates

Water flow rate (m³/h)	Heating capacity (kW)	Power input (W)
1.2	100 %	114 %
1.5	100 %	108 %
1.8	100 %	104 %
2.1	100 %	102 %
2.4	100 %	100 %
2.9	100 %	98 %

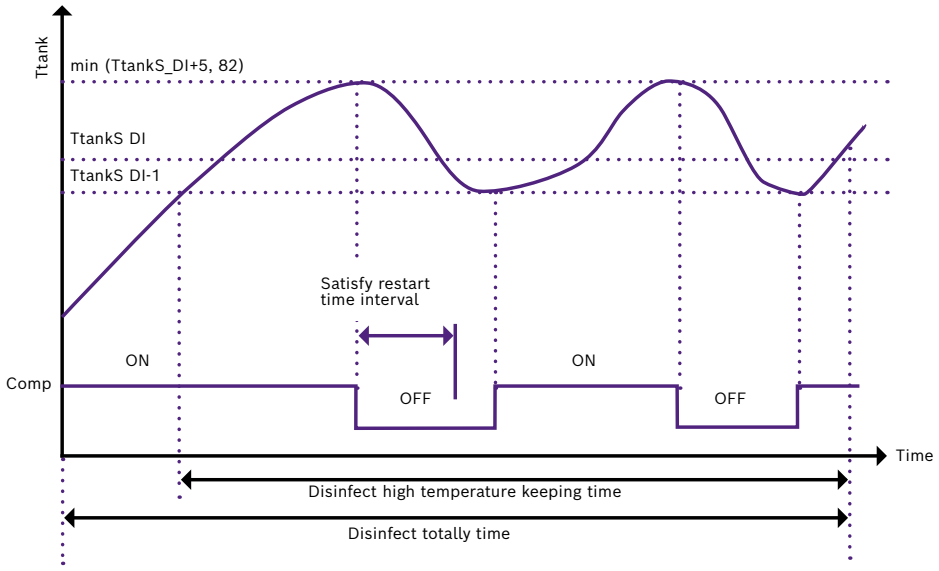


Several Built-in Functions

Disinfection Function

There are two types of disinfect modes. One for the installation, the other for daily use by the home user.

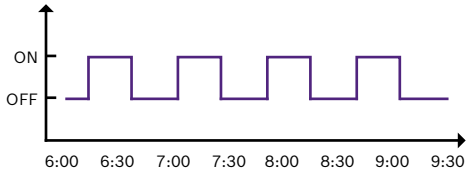
Control Logic of Disinfection Function



Domestic Hot Water (DHW) Pump Function

This function can be activated regularly for hot water delivery in 24 hours, which increases comfort.
The operation cycle according to the needs and also according to length of water piping system.

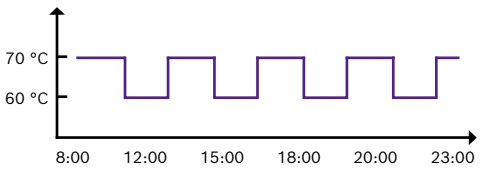
No	TIME
1	8:00
2	12:00
3	15:00
4	18:00



Preset Temperature Function

Only used when the hydromodule is in heating mode which is controlled via the hot water outlet temperature.

No	TIME	TEMP.
1	8:00	70 °C
2	12:00	60 °C
3	15:00	70 °C
4	18:00	60 °C
5	20:00	70 °C
6	23:00	60 °C



Indoor Units

Model		1.5 kW	1.8 kW	2.2 kW	2.8 kW	3.6 kW	4.5 kW	5.6 kW	6.3 kW	7.1 kW	8 kW	9 kW	10 kW	11.2 kW	12.5 kW	14 kW	16 kW	20 kW	22,4 kW	25.2 kW	28 kW	33.5 kW	40 kW	45 kW	56 kW
4-way cassette	 AF2-4CC	●		●	●	●	●	●	●																
	 AF2-4CR				●	●	●	●		●	●	●	●	●		●									
	 AF2-4CS						●	●		●	●	●	●	●		●									
1-way cassette	 AF2-1C		●	●	●	●	●	●		●															
Ducted	 AF2-DL	●		●	●	●	●	●		●	●	●		●											
	 AF2-DM	●		●	●	●	●	●		●	●	●		●	●	●	●								
	 AF2-DMS						●	●		●	●	●		●	●		●								
	 AF2-DH							●		●	●	●		●	●	●	●								
	 AF2-DH																	●	●	●	●	●	●	●	●
Wall	 AF2-W	●		●	●	●	●	●		●	●														
Ceiling/ Floor	 AF2-CF					●	●	●		●	●	●		●		●									
Floor	 AF2-FC			●	●	●	●	●		●															
	 AF2-F			●	●	●	●	●		●															

Air Flux – Cassette Indoor Units AF2-4CC

Height 235 mm, 4-way compact cassette with new panel design

- Automatic restart
- Duct connection to next room
- Anti-cold air function
- Seven-speed fan
- Fresh air intake option
- Easy to clean panel
- Integrated condensate pump
- Electronic expansion valve included
- Automatic addressing
- Follow me function (with wired controller)
- DC fan motor

Occupancy-controlled optimisation

- Millimetre wave radar sensing lets the controller automatically adjust room temperature based on the defined limits and detection of whether or not the room is occupied to control the climate while minimising energy consumption.
- Setpoint limits can be defined in the room controller.

Highlights

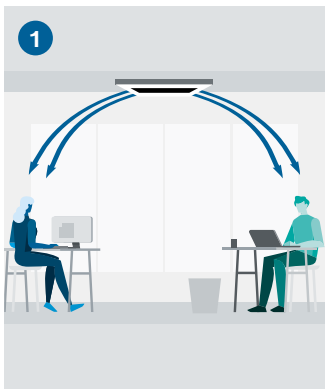
- Stylish design
- Comfort functions, e.g. individual louvre control and soft wind option
- 7-step fan speed
- Occupancy-controlled speed optimisation saves energy

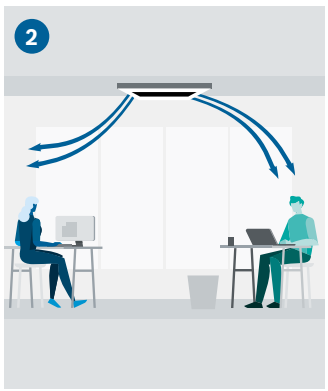
Independent louvre control

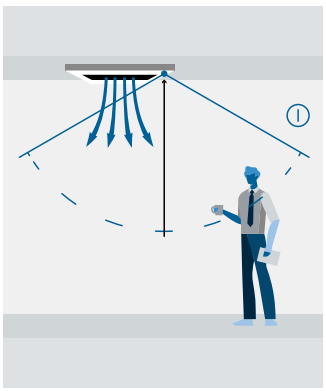
Flap motors are controlled individually, making it possible to control all four louvres independently.

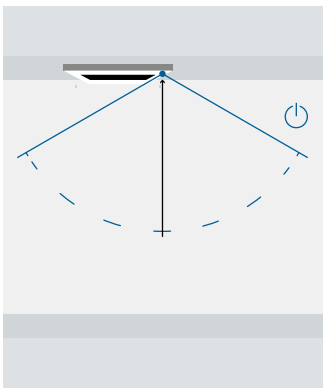
1 Earlier product versions didn't permit independent control of the individual louvres.

2 Four louvres are indepenently controlled









Technical Data – Cassette Indoor Units AF2-4CC

Model			AF2-4CC 15-1 P	AF2-4CC 22-1 P	AF2-4CC 28-1 P	AF2-4CC 36-1 P	AF2-4CC 45-1 P	AF2-4CC 56-1 P	AF2-4CC 63-1 P
Power Supply		**V/Hz**	1-phase, 230 V, 50 Hz						
Cooling capacity[1]		**kW**	1.5	2.2	2.8	3.6	4.5	5.6	6.3
Heating capacity[2]		**kW**	1.8	2.4	3.2	4.0	5.0	6.3	7.1
Power input[3]	**MCA**	**A**	0.46		0.54		0.61	0.65	0.81
	MFA	**A**	15						
Fan motor type			DC						
Air flow rate[3] **(0 Pa)**		**m³/h**	450/425/400/370/345/320/295		510/480/ 455/425/ 395/370/340	530/500/ 470/440/ 405/375/345	640/605/ 570/530/ 495/460/425	810/765/ 720/670/ 625/580/535	905/855/ 805/755/ 705/655/605
Sound pressure level[4] **(0 Pa)**		**dB(A)**	29/28/27/27/26/26/25		30/29/28/27/ 26/26/25	31/30/29/28/ 27/26/25.5	36.5/35/33/31/ 29/28/26.5	39/38/37/36/ 35/34/32	43/42/40/38/ 36/35/33.5
Sound power level (0 Pa)		**dB(A)**	40/39/39/39/38/38/38		42/41/40/39/ 39/38/38	42/40/39/38/ 38/38/38	44/44/43/42/ 41/41/41	48/46/45/43/ 42/42/41	51/50/48/46/ 45/44/42
Air flow rate[3] **(30 Pa)**		**m³/h**	670/630/590/549/509/470/435		690/649/ 610/565/ 525/485/450	730/685/ 640/599/ 555/510/475	810/760/ 715/665/ 615/570/530	920/865/ 810/755/ 700/645/600	1020/960/ 900/835/ 775/715/665
Sound pressure level[4] **(30 Pa)**		**dB(A)**	38/36/34/33/31/27/26		39/37/36/33/ 32/29/27	40/38/36/34/ 32/29/27	43/41/39/37/ 35/32/30	45/43/41/39/ 37/34/32	48/46/44/42/ 40/38/35
Sound power level (30 Pa)		**dB(A)**	47/47/46/45/44/44/43		48/47/47/46/ 45/44/43	50/49/48/47/ 46/45/43	53/52/51/50/ 48/47/46	56/55/54/52/ 51/50/48	59/58/56/55/ 54/52/51
Main body (W x H x D)	**Net dimensions**	**mm**	575 x 235 x 638						
	Packed dimension	**mm**	690 x 285 x 690						
	Net/Gross weight	**kg**	13.0/15.0			14.0/16.0		15.0/17.0	
Panel (W x H x D)	**Net dimensions**	**mm**	620 x 65 x 620						
	Packed dimension	**mm**	680 x 80 x 665						
	Net/Gross weight	**kg**	2.4/3.2						
Refrigertant type			R410A/R32						
Design pressure (H/L)		**MPa**	4.4/2.6						
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7						
	Drain pipe	**mm**	OD ø 25						

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 5 m with zero level difference.
[3] Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[4] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5 m below the unit in a semi- anechoic chamber.

Air Flux – Cassette Indoor Units AF2-4CR

Height 204 mm (for units up to 5.6 kW), round flow cassette in new slim design

- Automatic restart
- Fresh air intake option
- Automatic addressing
- Duct connection to next room
- Easy to clean panel
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included

Occupancy-controlled optimisation

- Using millimetre-wave radar sensor, the controller automatically adjusts the room temperature within the defined limits depending on whether or not the room is occupied to minimise energy consumption.
- Setpoint limits can be defined in the room controller.

Highlights

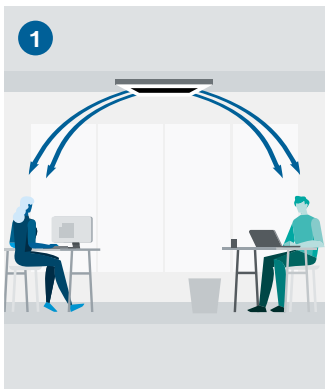
- Stylish slim design
- 360° air flow for even air distribution
- Individual louvre control
- Occupancy-controlled optimisation

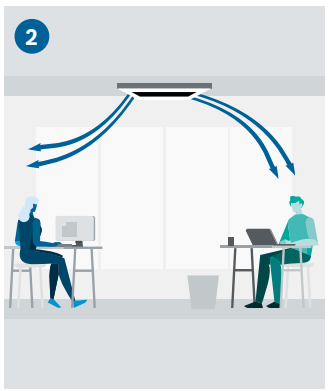
Independent louvre control

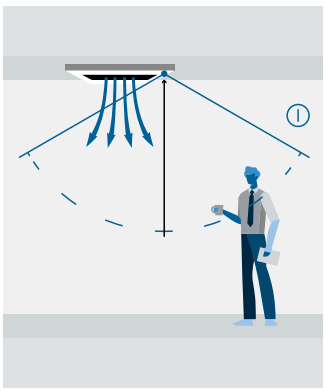
Flap motors are controlled individually, making it possible to control all four louvres independently.

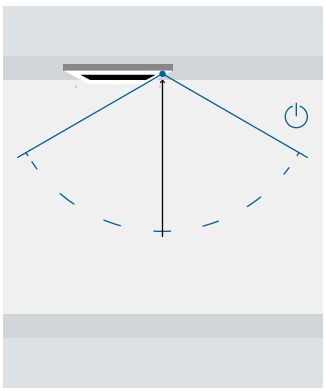
1 Earlier product versions didn't permit independent control of the individual louvres.

2 Four louvres are indepenently controlled









Technical Data – Cassette Indoor Units AF2-4CR

Model			AF2-4CR 28-1 P	AF2-4CR 36-1 P	AF2-4CR 45-1 P	AF2-4CR 56-1 P	AF2-4CR 71-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz				
Cooling capacity[1]		**kW**	2.8	3.6	4.5	5.6	7.1
Heating capacity[2]		**kW**	3.2	4.0	5.0	6.3	8.0
Power input[3]	**MCA**	**A**	0.51		0.59		0.94
	MFA	**A**	15				
Fan motor type			DC				
Air flow rate[4]		**m³/h**	790/740/691/641/591/542/492		840/787/733/680/626/573/519	840/791/741/692/642/593/543	1000/943/886/829/772/715/658
Sound pressure level[5]		**dB(A)**	30/29/28/27.5/27/26/25		33/32/31/30/29/28/27		37/36/34/33/32/30/29
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	840 x 840 x 204				840 x 840 x 246
	Packed dimensions (W x H x D)	**mm**	940 x 940 x 250				940 x 940 x 295
	Net/gross weight	**kg**	18.0/20.5		19.5/22.0		22.0/24.5
Panel	**Net dimensions (W x H x D)**	**mm**	950 x 950 x 50				
	Packed dimensions (W x H x D)	**mm**	1020 x 1020 x 90				
	Net/gross weight	**kg**	5.8/7.6				
Refigerant type			R410A/R32				
Design pressure (H/L)		**MPa**	4.4/1.5				
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7				ø 9.52/ø 15.9
	Drain pipe	**mm**	OD ø 25				

Model			AF2-4CR 80-1 P	AF2-4CR 90-1 P	AF2-4CR 100-1 P	AF2-4CR 112-1 P	AF2-4CR 140-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz				
Cooling capacity[1]		**kW**	8.0	9.0	10.0	11.2	14.0
Heating capacity[2]		**kW**	9.0	10.0	11.2	12.5	16.0
Power input[3]	**MCA**	**A**	0.95	1.05	1.09	1.18	1.41
	MFA	**A**	15				
Fan motor type			DC				
Air flow rate[4]		**m³/h**	1330/1239/1148/1057/965/874/783		1445/1363/1282/1200/1118/1037/955	1600/1497/1393/1290/1186/1083/979	1730/1624/1518/1412/1306/1200/1094
Sound pressure level[5]		**dB(A)**	38/37/35/34/32/31/29		39/38/37/36/35/34/33	41/40/38/37/36/34/33	43/42/40/39/37/36/34
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	840 x 840 x 246		840 x 840 x 288		
	Packed dimensions (W x H x D)	**mm**	940 x 940 x 295		940 x 940 x 335		
	Net/gross weight	**kg**	22.0/24.5		24.0/26.5		26.5/29.0
Panel	**Net dimensions (W x H x D)**	**mm**	950 x 950 x 50				
	Packed dimensions (W x H x D)	**mm**	1020 x 1020 x 90				
	Net/gross weight	**kg**	5.8/7.6				
Refigerant type			R410A/R32				
Design pressure (H/L)		**MPa**	4.4/1.5				
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ø 15.9				
	Drain pipe	**mm**	OD ø 25				

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Cassette Indoor Units AF2-4CS

Height 246 mm (for units up to 5.6 kW), round flow cassette – Air-dry series

- Automatic restart
- Duct connection to next room
- Anti-cold air function
- Seven-speed fan
- Fresh air intake option
- Easy to clean panel
- Integrated condensate pump
- Electronic expansion valve included
- Automatic addressing
- Follow me function (with wired controller)
- DC fan motor

Occupancy-controlled optimisation

- Using millimetre-wave radar sensor, the controller automatically adjusts the room temperature within the defined limits depending on whether or not the room is occupied to minimise energy consumption.
- Setpoint limits can be defined in the room controller.

Highlights

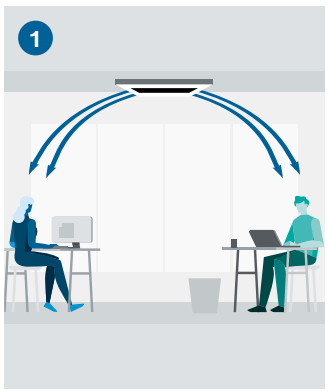
- Stylish slim design
- 360° air flow for even air distribution
- Individual louvre control
- Occupancy-controlled optimisation
- Special Unit for de-humidification
- Cassette indoor units with higher latent cooling capacity compared to standard cassette units to cover use cases for high humid locations

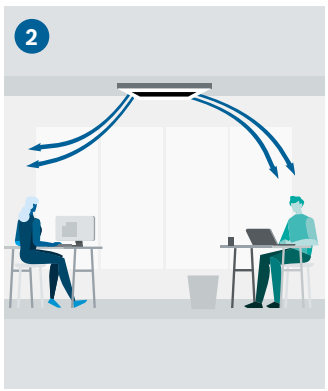
Independent louvre control

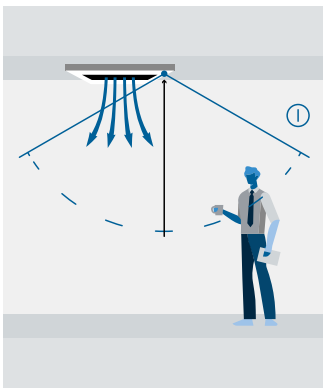
Flap motors are controlled individually, making it possible to control all four louvres independently.

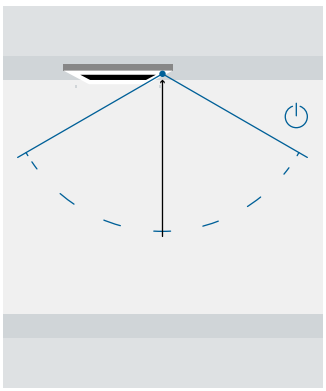
1 Earlier product versions didn't permit independent control of the individual louvres.

2 Four louvres are indepenently controlled









Technical Data – Cassette Indoor Units AF2-4CS

Model			AF2-4CS 45-1 P	AF2-4CS 56-1 P	AF2-4CS 71-1 P	AF2-4CS 80-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	4.5	5.6	7.1	8.0
Heating capacity[2]		**kW**	5.0	6.3	8.0	9.0
Power input[3]	**MCA**	**A**	0.47		0.84	0.94
	MFA	**A**	15			
Fan motor type			DC			
Air flow rate[4]		**m³/h**	829/801/772/744/715/687/658		1118/1091/1064/1037/1009/982/955	1282/1228/1173/1119/1064/1009.5/955
Sound pressure level[5]		**dB(A)**	33/32.3/31.7/31/30.3/29.7/29		35/34.7/34.3/34/33.7/33.3/33	37/36.3/35.7/35/34.3/33.7/33
Sound power level		**dB(A)**	48/47.7/47.3/47/46.7/46.3/46		50/49.8/49.7/49.5/49.3/49.2/49	52/51.5/51/50.5/50/49.5/49
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	840 x 246 x 840		840 x 288 x 840	
	Packed dimensions (W x H x D)	**mm**	940 x 295 x 940		940 x 335 x 940	
	Net/gross weight	**kg**	22.0/24.5		24.0/26.5	
Panel	**Net dimensions (W x H x D)**	**mm**	950 x 50 x 950			
	Packed dimensions (W x H x D)	**mm**	1020 x 90 x 1020			
	Net/gross weight	**kg**	5.6/7.3			
Refigerant type			R410A/R32			
Design pressure (H/L)		**MPa**	4.4/2.6			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7			
	Drain pipe	**mm**	OD ø 25			

Model			AF2-4CS 90-1 P	AF2-4CS 100-1 P	AF2-4CS 112-1 P	AF2-4CS 140-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	9.0	10.0	11.2	14.0
Heating capacity[2]		**kW**	10.0	11.2	12.5	16.0
Power input[3]	**MCA**	**A**	0,94	1.32	1.40	1.41
	MFA	**A**	15			
Fan motor type			DC			
Air flow rate[4]		**m³/h**	1282/1228/1173/1119/1064/1010/955	1412/1359/1306/1253/1200/1147/1094	1518/1447/1377/1306/1235/1165/1094	1730/1624/1518/1412/1306/1200/1094
Sound pressure level[5]		**dB(A)**	37/36.3/35.7/35/34.3/33.7/33	39/38.2/37.3/36.5/35.7/34.8/34	40/39/38/37/36/35/34	43/41.5/40/38.5/37/35.5/34
Sound power level		**dB(A)**	52/51.5/51/50.5/50/49.5/49	55/54.5/54/53.5/53/52.5/52	56/55.3/54.7/54/53.3/52.7/52	58/57/56/55/54/53/52
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	840 x 288 x 840			
	Packed dimensions (W x H x D)	**mm**	940 x 335 x 940			
	Net/gross weight	**kg**	24.0/26.5	26.5/29.0		
Panel	**Net dimensions (W x H x D)**	**mm**	950 x 53 x 950			
	Packed dimensions (W x H x D)	**mm**	1020 x 90 x 1020			
	Net/gross weight	**kg**	5.6/7.3			
Refigerant type			R410A/R32			
Design pressure (H/L)		**MPa**	4.4/2.6			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ ø 15.9			
	Drain pipe	**mm**	OD ø 25			

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

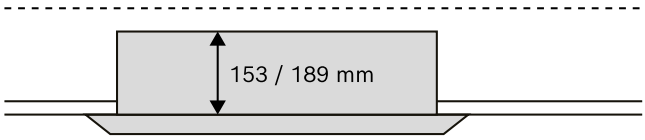
Air Flux – Cassette Indoor Units AF2-1C

Height 153 or 189 mm, with automatic swing mechanism for equal flow distribution

- Automatic restart
- Automatic addressing
- Easy to clean panel
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included

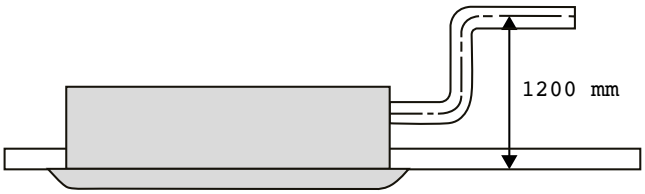
Low Profile Design (153 or 189 mm)

With a height of just 153 or 189 mm, the unit requires only little space in a drop ceiling. There are no height restrictions on installation – maximum design flexibility.



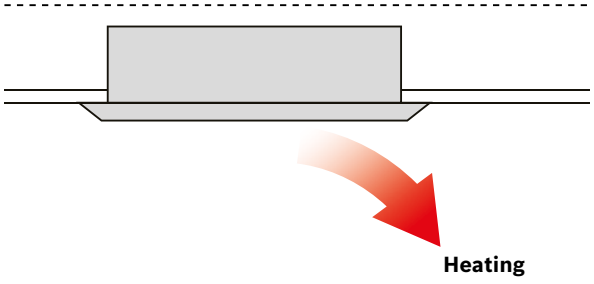
Integrated Condensate Pump

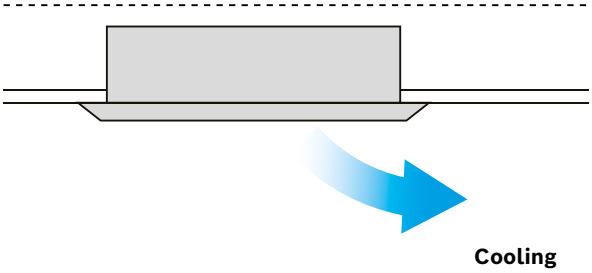
Standard condensate pump included, with 1200 mm lift capacity.



Auto Swing Function

The automatic swing mechanism distributes the air flow equally in the room and improves temperature balance.





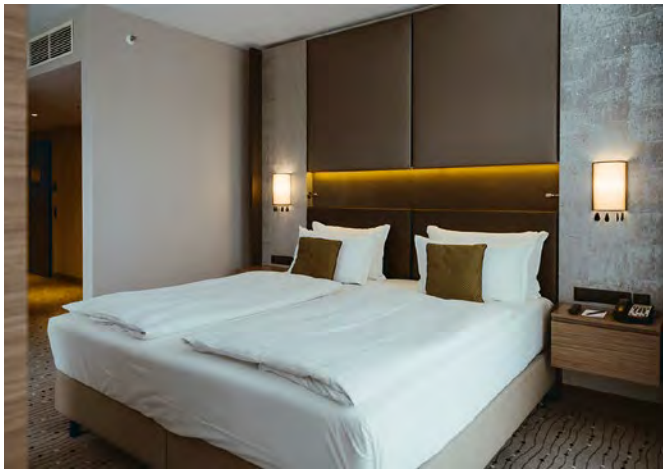
Technical Data – Cassette Indoor Units AF2-1C

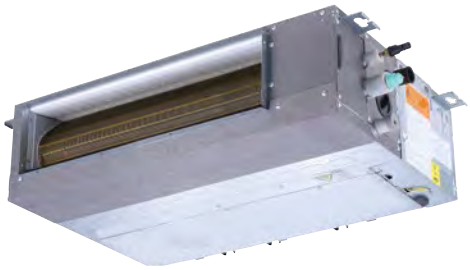
Model			AF2-1C 18-1 P	AF2-1C 22-1 P	AF2-1C 28-1 P	AF2-1C 36-1 P	AF2-1C 45-1 P	AF2-1C 56-1 P	AF2-1C 71-1 P
Power supply		V/Hz	1-phase, 230 V, 50 Hz						
Cooling capacity[1]		kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity[2]		kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0
Power input[3]	**MCA**	A	0.38		0.39		0.53	0.58	0.59
	MFA	A	15						
Air flow rate[4]		m^3/h	380/355/330/300/286/263/240		460/440/410/380/355/330/300		693/662/638/600/556/510/476	792/763/728/688/643/589/549	933/873/815/749/689/637/592
Sound pressure level[5]		dB(A)	30/28/27/26/25/24/22		37/36/35/34/32/31/30	38/37/35/34/32/31/30	39/37/36/35/34/32/31	41/39/38/37/36/35/33	43/41/40/39/37/36/35
Sound power level		dB(A)	44/42/41/40/39/38/36		51/50/49/48/46/45/44	52/51/49/48/46/45/44	53/51/50/49/48/46/45	55/53/52/51/50/49/47	57/55/54/53/51/50/49
Body	**Net dimensions (W x H x D)**[6]	mm	1054 x 153 x 428				1275 x 189 x 452		
	Packed dimensions (W x H x D)	mm	1155 x 245 x 490				1370 x 295 x 505		
	Net/gross weight	kg	11.5/14.5		11.8/14.8		15.8/20.2		16.9/21.4
Panel	**Net dimensions (W x H x D)**	mm	1180 x 25 x 465				1350 x 25 x 505		
	Packed dimensions (W x H x D)	mm	1232 x 107 x 517				1410 x 95 x 560		
	Net/gross weight	kg	3.5/5.2				4/5.4		
Refigerant type			R410A/R32						
Design pressure (H/L)		MPa	4.4/2.6						
Pipe connections	**Liquid/Gas pipe**	mm	ø 6.35/ø 12.7					ø 9.52/ ø 15.9	
	Drain pipe	mm	OD ø 25						

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[3] Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[4] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4 m below the unit in a semianechoic chamber.
[5] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Ducted Indoor Units AF2-DL

Height 199 mm, highly space-saving

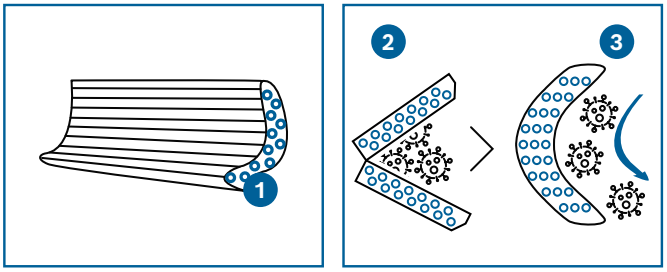




- Automatic restart
- Automatic addressing
- Duct connection option
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included

Highlights

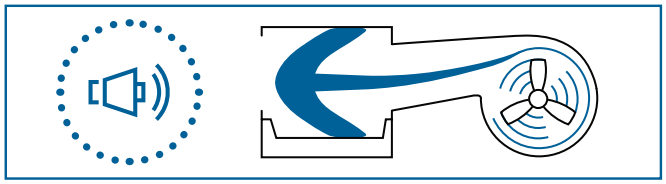
- Static pressure of up to 160 Pa
- Reduced height and compact design
- Automatic ESP setting
- Wide capacity range



C-shaped heat exchanger

- C-shaped heat exchanger for fast drainage and reduced accumulation of dirt and dust

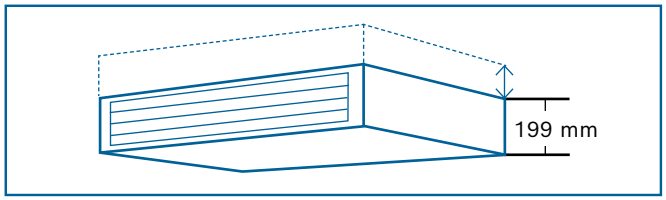
1. **C-shaped heat exchanger**
   (Standard) for quick discharge of dirt and dust
2. **Conventional V-shaped heat exchanger**
   Dirt and dust get stuck in heat exchanger
3. **C-shaped heat exchanger**
   Fast drainage with highly reduced adhesion



- **Fan motor** noise reduction
- **Air duct** noise reduction
- **Heat exchanger** noise reduction

Quiet operation

- Optimised designs of fan motor, unit body and heat exchange let the new ducted units operate with a noise level as low as 22dB(A)*, creating a quieter and more comfortable environment.



Ultra-thin unit

- Ultra-thin body design: all units of the series are only 199 mm high, greatly saving space and permitting more flexible installation.

Technical Data – Ducted Indoor Units AF2-DL

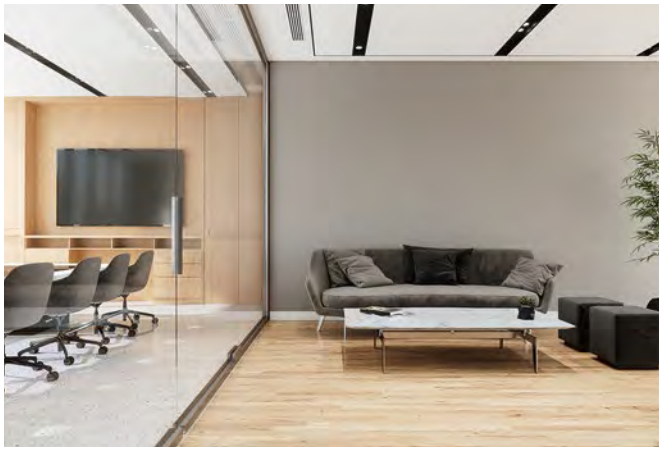
Model			AF2-DL 15-1 P	AF2-DL 22-1 P	AF2-DL 28-1 P	AF2-DL 36-1 P	AF2-DL 45-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz				
Cooling capacity[1]		**kW**	1.5	2.2	2.8	3.6	4.5
Heating capacity[2]		**kW**	1.8	2.5	3.2	4.0	5.0
Power input[3]	**MCA**	**A**	0.88			0.94	1.10
	MFA	**A**	15				
Fan motor type			DC				
Air flow rate[4]		**m³/h**	340/335/329/320/ 307/298/290	370/347/339/322/ 314/306/295	460/431/413/380/ 351/323/300	605/557/508/453/ 414/365/320	800/770/701/629/ 557/506/435
External static pressure		**Pa**	Default: 10 (10 - 50)				
Sound pressure level[5]		**dB(A)**	27/26/25.5/24.5/ 23.5/22.5/22	28/27.5/26.5/25.5/ 24.5/23.5/22	30/29.5/28.5/27.5/ 26/24.5/22	30/29.5/28.5/27.5/ 26.5/25.5/25	33/32.5/32/30.5/ 29/27.5/26
Sound power level		**dB(A)**	43.5/43/42.5/42/ 41.5/41/40	46/45/44/43/ 42/41/40	50.5/49/47/45.5/ 43.5/42/40	50.5/49.5/48/47/ 45.5/44.5/43	52/50.5/49/47.5/ 46/44.5/43
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	653 x 199 x 470			803 x 199 x 470	1003 x 199 x 470
	Packed dimensions (W x H x D)	**mm**	715 x 275 x 525			865 x 275 x 525	1065 x 275 x 525
	Net/gross weight	**kg**	11.5/13.5			13.0/15.5	16.5/19.5
Throttle type			Electronic expansion valve				
Design pressure (H/L)		**MPa**	4.4/1.5				
Refigerant type			R410A/R32				
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7				
	Drain pipe	**mm**	OD ø 25				

Model			AF2-DL 56-1 P	AF2-DL 71-1 P	AF2-DL 80-1 P	AF2-DL 90-1 P	AF2-DL 112-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz				
Cooling capacity[1]		**kW**	5.6	7.1	8.0	9.0	11.2
Heating capacity[2]		**kW**	6.3	8.0	9.0	10.0	12.5
Power input[3]	**MCA**	**A**	1.10	1.20	1.70		
	MFA	**A**	15				
Fan motor type			DC				
Air flow rate[4]		**m³/h**	900/800/761/682/ 603/549/470	1145/1033/957/860/ 763/671/580	1400/1327/1249/1175/1095/1026/960		1620/1522/1433/1343 /1254/1170/1080
External static pressure		**Pa**	Default: 10 (10 - 50)				
Sound pressure level[5]		**dB(A)**	36/34.5/33.5/32.5/ 31/29/27	37/35/34/32.5/ 31/30/29	36.5/35.5/34/33/32/31.5/30.5		39.5/38/36.5/35/ 34/32.5/31.5
Sound power level		**dB(A)**	56/54/52/50/ 48/46/44	57/55.5/54/52/ 50.5/49/47	57/56/54.5/53.5/52/51/49.5		60.5/59/57.5/55.5/ 54/52.5/50.5
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	1003 x 199 x 470	1203 x 199 x 470	1703 x 199 x 470		
	Packed dimensions (W x H x D)	**mm**	1065 x 275 x 525	1265 x 275 x 525	1755 x 255 x 525		
	Net/gross weight	**kg**	16.5/19.5	20.0/23.5	28.0/32.5		
Throttle type			Electronic expansion valve				
Design pressure (H/L)		**MPa**	4.4/1.5				
Refigerant type			R410A/R32				
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7	ø 9.52/ø 15.9	ø 9.52/ø 15.9		
	Drain pipe	**mm**	OD ø 25				

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Ducted Indoor Units AF2-DM

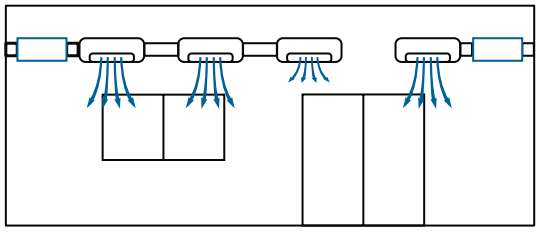
Height 245 mm, unit needs less installation space



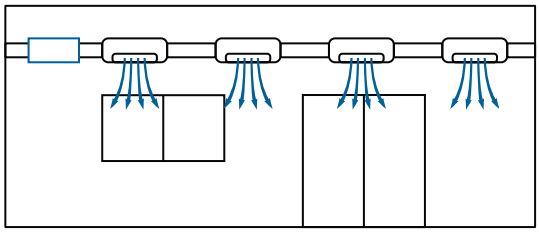
- Automatic restart
- Automatic addressing
- Duct connection option
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included

Highlights

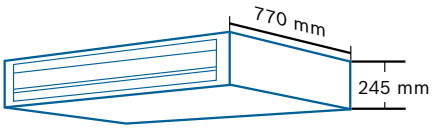
- Static pressure of up to 160 Pa
- Reduced height and compact design
- Automatic ESP setting
- Wide capacity range



Conventional ducted units



Thin unit with high external static pressure



Dimensions

Thin unit with high external static pressure

- All models have a static pressure of max. 160 Pa and a unit height of only 245 mm.
- High static pressure lets air be delivered over longer distances without loss of cooling and heating. Especially suitable for long and narrow spaces.

Automatic ESP setting

- There is no need to adjust the static pressure setting of the indoor unit during installation, and the indoor unit automatically adjusts to the rated air volume via a controller.
- Especially in long ducted applications, it can reduce the number of units used and reduce investment costs.

Technical Data – Ducted Indoor Units AF2-DM

Model			AF2-DM 15-1 P	AF2-DM 22-1 P	AF2-DM 28-1 P	AF2-DM 36-1 P	AF2-DM 45-1 P	AF2-DM 56-1 P	AF2-DM 71-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz						
Cooling capacity[1]		**kW**	1.5	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity[2]		**kW**	1.8	2.5	3.2	4.0	5.0	6.3	8.0
Power input[3]	**MCA**	**A**	0.63			0.80	1.19		1.5
	MFA	**A**	15						
Fan motor type			DC						
Air flow rate[4]		**m³/h**	470/438/ 407/375/ 343/312/280	500/467/ 433/400/ 367/333/300	540/503/ 467/430/ 393/357/320	575/535/ 495/455/ 415/375/335	665/623/ 580/538/ 495/453/410	970/904/ 838/773/ 707/641/575	1150/1068/ 986/904/ 822/740/660
External static pressure		**Pa**	Default: 30 (10 - 160)						
Sound pressure level[5]		**dB(A)**	26.5/26/25/24/23/22.5/22			29/28/27/26/ 25/23/22	33/32/29.5/28/ 26.5/25/24	33/32/31/30/ 27.5/26/25	35/33.5/32/30.5/ 29/27.5/26
Sound power level		**dB(A)**	46/44.5/43/41.5/ 40/38.5/37	47/45.5/44/42.5/41/39.5/38		50/48.5/47/45/ 43/41/39	53/51/49/47/ 45/43/41	55/53/51/49/ 47/45/43	58/56/54/51.5/ 48/47/45
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	710 x 245 x 770					910 x 245 x 770	
	Packed dimensions (W x H x D)	**mm**	765 x 305 x 890					965 x 305 x 890	
	Net/gross weight	**kg**	18.5/21				19.5/22	24.0/27.5	25.0/28.5
Throttle type			Electronic expansion valve						
Design pressure (H/L)		**MPa**	4.4/2.6						
Refigerant type			R410A/R32						
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7						ø 9.52/ø 15.9
	Drain pipe	**mm**	OD ø 25						

Model			AF2-DM 80-1 P	AF2-DM 90-1 P	AF2-DM 112-1 P	AF2-DM 125-1 P	AF2-DM 140-1 P	AF2-DM 160-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz					
Cooling capacity[1]		**kW**	8.0	9.0	11.2	12.5	14.0	16.0
Heating capacity[2]		**kW**	9.0	10.0	12.5	14.0	16.0	18.0
Power input[3]	**MCA**	**A**	1.5	1.63	1.78	2.29	2.31	2.76
	MFA	**A**	15					
Fan motor type			DC					
Air flow rate[4]		**m³/h**	1355/1263/ 1172/1080/ 988/897/805	1420/1323/ 1225/1128/ 1030/ 933/835	1950/1817/ 1683/1550/ 1417/1283/1150	2105/1971/1837/1703/ 1568/1434/1300		2350/2160/ 2015/1871/ 1776/1533/1400
External static pressure		**Pa**	Default: 40 (10 - 160)			Default: 50 (10 - 160)		
Sound pressure level[5]		**dB(A)**	37/35.5/34/32.5/31/29.5/28		39/37/35/33/ 31/29/28	40/38/36/34/32/30/29		42/40/38/36/ 34/33/31
Sound power level		**dB(A)**	59/57/55/53/ 51/49/47	59/57/55/53/ 50.5/48/46	60/58/56.5/55/ 53.5/52/50	64/62/61.5/59.5/ 57.5/55/53		65/63/61/58.5/ 56.5/54/52
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	1160 x 245 x 770		1510 x 245 x 770			
	Packed dimensions (W x H x D)	**mm**	1215 x 305 x 890		1565 x 305 x 890			
	Net/gross weight	**kg**	30/33.5	31/34.5	37/41.5	39/43.5		
Throttle type			Electronic expansion valve					
Design pressure (H/L)		**MPa**	4.4/2.6	4.4/1.5				
Refigerant type			R410A/R32					
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ø 15.9					
	Drain pipe	**mm**	OD ø 25					

[1] Indoor temperature 27 °C DB; 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

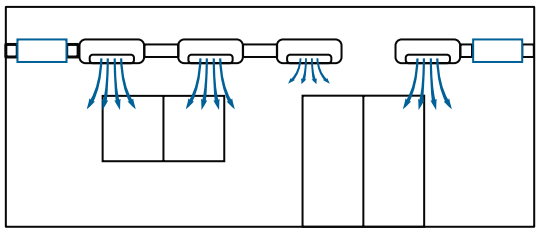
Air Flux – Ducted Indoor Units AF2-DMS

Height 245 mm, Air-dry series

- Automatic restart
- Automatic addressing
- Duct connection option
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan

Highlights

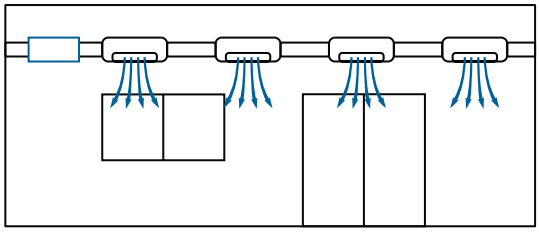
- Static pressure of up to 160 Pa
- Reduced height and compact design
- Automatic ESP setting
- Wide capacity range
- Special Unit for de-humidification
- Ducted indoor units with higher latent cooling capacity compared to standard ducted units to cover use cases for high humid locations



Conventional ducted units

Thin unit with high external static pressure

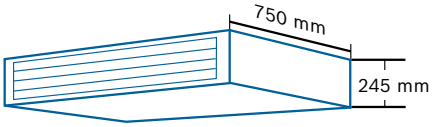
- All models have a static pressure of max. 160 Pa and a unit height of only 245 mm.
- High static pressure lets air be delivered over longer distances without loss of cooling and heating. Especially suitable for long and narrow spaces.



Thin unit with high external static pressure

Automatic ESP setting

- There is no need to adjust the static pressure setting of the indoor unit during installation, and the indoor unit automatically adjusts to the rated air volume via a controller.
- Especially in long ducted applications, it can reduce the number of units used and reduce investment costs.



Dimensions

Technical Data – Ducted Indoor Units AF2-DMS

Model			AF2-DMS 45-1 P	AF2-DMS 56-1 P	AF2-DMS 71-1 P	AF2-DMS 80-1 P	AF2-DMS 90-1 P	AF2-DMS 112-1 P	AF2-DMS 140-1 P
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz						
Cooling capacity[1]		**kW**	4.5	5.6	7.1	8.0	9.0	11.2	14.0
Heating capacity[2]		**kW**	5.0	6.3	8.0	9.0	10.0	12.5	16.0
Power input[3]	**MCA**	**A**	1.19	1.41	1.52	1.56	1.98	2.25	2.31
	MFA	**A**	15						
Fan motor type			DC						
Air flow rate[4]		**m^3/h**	823/796/769/742/714/687/660	900/860/820/780/740/700/660	1128/1079/1030/982/933/884/835	1225/1160/1095/1030/965/900/835	1568/1523/1479/1434/1389/1345/1300	1837/1748/1658/1569/1479/1390/1300	2105/1971/1837/1703/1568/1434/1300
External static pressure		**Pa**	30 (10 - 160)			40 (10 - 160)			50 (10 - 160)
Sound pressure level[5]		**dB(A)**	31/30/29/28/27/26/25	32.5/31/30/29/28/26/25	33/32.5/32/31/30.5/30/29	35/34/33/32/31/30/29	36.5/36/35.5/35/34/33.5/33	39/38/37.5/36.5/35/34/33	40/38/36/34/32/30/29
Sound power level		**dB(A)**	52/51/50/49/47/46/45	54/53/52/51/48/46/45	57/55/54/52/51/50/49	58/56/55/54/52/50/49	59/58.5/58/57/57.5/57/56	60/59/58.5/58/57.5/57/56	64/62/61.5/59.5/57.5/55/53
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	800 x 245 x 750		1050 x 245 x 750		1400 x 245 x 750		
	Packed dimensions (W x H x D)	**mm**	965 x 305 x 885		1215 x 305 x 885		1565 x 305 x 885		
	Net/gross weight	**kg**	25.0/28.5		31.0/35.0		39.0/44.0		
Design pressure (H/L)		**MPa**	4.4/2.6						
Refigerant type			R410A/R32						
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7		ø 9.52/ø 15.9				
	Drain pipe	**mm**	OD ø 25						

[1] Indoor temperature 27 °C DB; 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Ducted Indoor Units AF2-DH, Slim, High Pressure

Height 299 mm, ESP up to 250 Pa

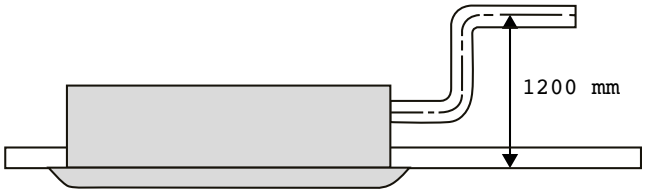
- Automatic restart
- Automatic addressing
- Duct connection option
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included

Highlights

- Remote on/off
- Washable filter
- External static pressure up to 250 Pa

Integrated Condensate Pump

Standard condensate pump included, with 1200 mm lift capacity.



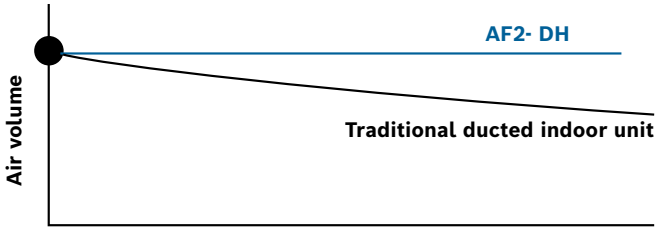
Constant Speed Technology

External static pressure is only relevant for units designed for installation in ducts.
Each individual unit is assigned via the device address.
Depending on the unit, the external static pressure can be set automatically or via up to 20 steps.

Settings:

- A = Automatic allocation
- 0 = No external static pressure
- 1 ... 19. Levels of the external static pressure

For more information refer to the technical documentation of the unit and unit controller.



External static pressure at air ducts, filters, grilles

Technical Data – Ducted Indoor Units AF2-DH, Slim, High Pressure

Model			AF2-DH 56-1	AF2-DH 71-1	AF2-DH 80-1	AF2-DH 90-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	5.6	7.1	8.0	9.0
Heating capacity[2]		**kW**	6.3	8.0	9.0	10.0
Power input[3]	**MCA**	**A**	2.33			2.46
	MFA	**A**	15			
Air flow rate [4]		**m³/h**	1360/1281/1201/1122/1043/963/884			1500/1413/1325/1238/ 1150/1063/975
ESP (External Static Pressure)		**Pa**	80 (0 - 250)			
Sound pressure level[5]		**dB(A)**	39/38/36/35/33/32/30			40/39/37/36/34/33/31
Sound power level		**dB(A)**	59/56/54/53/51/49/47			63/60/58/56/54/52/50
Body	**Net dimensions (W x H x D)**[6]	**mm**	1050 x 299 x 750			
	Packed dimensions (W x H x D)	**mm**	1215 x 359 x 890			
	Net/gross weight	**kg**	35/38.8			
Design pressure (H/L)		**MPa**	4.4/2.6			
Refigerant type			R410A/R32			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7	ø 9.52/ø 15.9		
	Drain pipe	**mm**	OD ø 25			

Model			AF2-DH 112-1	AF2-DH 125-1	AF2-DH 140-1	AF2-DH 160-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	11.2	12.5	14.0	16.0
Heating capacity[2]		**kW**	12.5	14.0	16.0	18.0
Power input[3]	**MCA**	**A**	3.34	3.38	3.75	4.13
	MFA	**A**	15			
Air flow rate[4]		**m³/h**	2140/2015/1890/1766/ 1641/1516/1391	2150/2025/1899/ 1774/ 1649/1523/1398	2400/2260/2120/1980/ 1840/1700/1560	2600/2448/2297/2145/ 1993/1842/1690
ESP (External Static Pressure)		**Pa**	80 (0 - 250)	100 (0 - 250)		
Sound pressure level[5]		**dB(A)**	41/40/38/37/35/34/32	41/40/39/37/36/35/33	43/42/40/39/37/36/34	44/43/41/40/38/37/35
Sound power level		**dB(A)**	63/61/59/57/56/54/52	66/64/62/60/58/56/54	67/64/62/60/58/57/55	68/66/64/62/60/59/57
Body	**Net dimensions (W x H x D)**[6]	**mm**	1400 x 299 x 750			
	Packed dimensions (W x H x D)	**mm**	1565 x 359 x 890			
	Net/gross weight	**kg**	44.5/48.5	46.5/50.5		
Design pressure (H/L)		**MPa**	4.4/2.6			
Refigerant type			R410A/R32			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ø 15.9			
	Drain pipe	**mm**	OD ø 25			

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4 m below the unit in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Ducted Indoor Units AF2-DH, Large Units

Height 580 mm, ESP up to 400 Pa

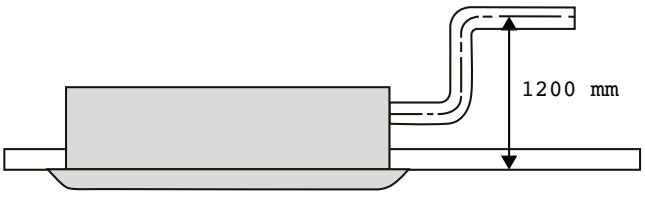
- Automatic restart
- Automatic addressing
- Duct connection option
- Follow me function (with wired controller)
- Anti-cold air function
- Integrated condensate pump
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included

Highlights

- Remote on/off
- Washable filter
- External static pressure up to 400 Pa

Integrated Condensate Pump

Standard condensate pump included, with 1200 mm lift capacity.



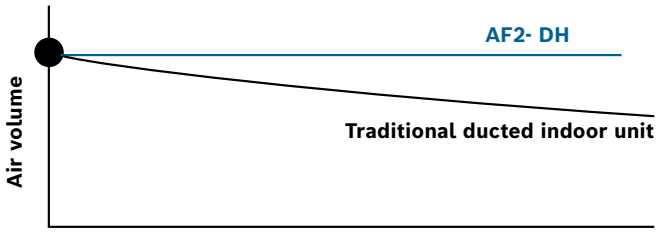
Constant Speed Technology

External static pressure is only relevant for units designed for installation in ducts.
Each individual unit is assigned via the device address.
Depending on the unit, the external static pressure can be set automatically or via up to 20 steps.

Settings:

- A = Automatic allocation
- 0 = No external static pressure
- 1 ... 19. Levels of the external static pressure

For more information refer to the technical documentation of the unit and unit controller.



External static pressure at air ducts, filters, grilles

Technical Data – Ducted Indoor Units AF2-DH, Large Units

Model			AF2-DH 200-1	AF2-DH 224-1	AF2-DH 252-1	AF2-DH 280-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	20.0	22.4	25.2	28.0
Heating capacity[2]		**kW**	22.5	25.0	26.0	31.5
Power input[3]	**MCA**	**A**	8.19			
	MFA	**A**	30			
Air flow rate [4]		**m³/h**	4700/4387/4073/3760/3447/3133/2820			
ESP (External Static Pressure)		**Pa**	200 (0 - 400)			
Sound pressure level[5]		**dB(A)**	51/50/48/46/44/43/42			
Sound power level		**dB(A)**	74/72/70/68/66/64/62			
Body	**Net dimensions (W x H x D)**[6]	**mm**	1300 x 580 x 900			
	Packed dimensions (W x H x D)	**mm**	1530 x 730 x 1060			
	Net/gross weight	**kg**	125/150			
Design pressure (H/L)		**MPa**	4.4/2.6			
Refigerant type			R410A/R32			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ø 19.1		ø 12.7/ø 22.2	
	Drain pipe	**mm**	OD ø 32			

Model			AF2-DH 335-1	AF2-DH 400-1	AF2-DH 450-1	AF2-DH 560-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	33.5	40.0	45.0	56.0
Heating capacity[2]		**kW**	38.0	45.0	56.0	63.0
Power input[3]	**MCA**	**A**	8.31	12.98		15.49
	MFA	**A**	30			
Air flow rate[4]		**m³/h**	4700/4387/4073/3760/ 3447/3133/2820	7500/7000/6500/6000/5500/5000/4500		8400/7840/7280/6720/ 6160/5600/5040
ESP (External Static Pressure)		**Pa**	200 (0 - 400)	300 (0 - 400)		
Sound pressure level[5]		**dB(A)**	52/51/49/48/46/44/43	58/56/54/52/50/49/48		59/58/56/54/53/51/49
Sound power level		**dB(A)**	74/72/70/68/66/63/61	79/78/76/74/72/70/67		81/80/77/75/73/71/69
Body	**Net dimensions (W x H x D)**[6]	**mm**	1300 x 580 x 900	1850 x 580 x 900		
	Packed dimensions (W x H x D)	**mm**	1530 x 730 x 1060	2080 x 730 x 1060		
	Net/gross weight	**kg**	128/153	166/204		170/208
Design pressure (H/L)		**MPa**	4.4/2.6			
Refigerant type			R410A/R32			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 12.7/ø 25.4		ø 15.9/ø 28.6	
	Drain pipe	**mm**	OD ø 32			

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.4 m below the unit in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Wall Indoor Units AF2-W

With 7-step DC inverter fan

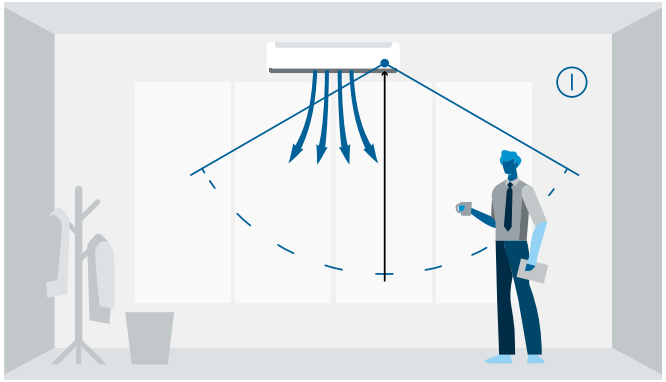
- Automatic restart
- Easy to clean panel
- Follow me function
- Auto swing function
- Anti-cold air function
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included
- Washable filter
- External drain pump (optional)

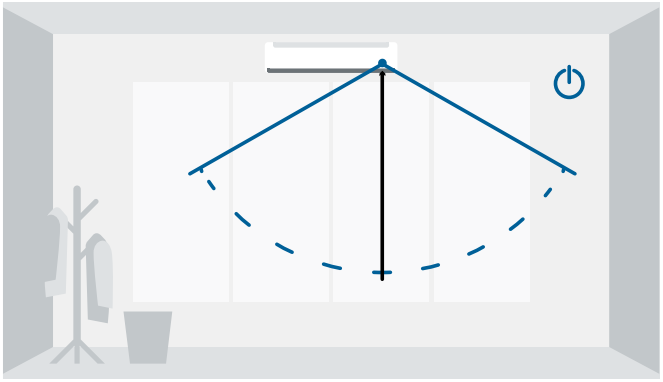
Highlights

- Stylish design
- Comfort functions, e.g. occupancy-based optimisation
- 7-step fan speed

Stylish design

- The new design panel harmonises with all interiors
- LED display on front panel
- 7-step fan speed
- Auto restart function
- An occupancy sensor lets the wall unit automatically reduce capacity when no one is home
- Setpoint limits definable in the room controller
- Pipe connection possible from left, right or rear
- Easy control via infrared or wired controller Millimetre-wave radar sensing lets the controller automatically adjust room temperature within defined limits basedon whether or not the room is occupied for climate control with minimised energy consumption.
- Setpoint limits can be defined in the room controller.





Technical Data – Wall Indoor Units AF2-W

Model			AF2-W 15-1	AF2-W 22-1	AF2-W 28-1	AF2-W 36-1	AF2-W 45-1	AF2-W 56-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz					
Cooling capacity[1]		**kW**	1.5	2.2	2.8	3.6	4.5	5.6
Heating capacity[2]		**kW**	1.7	2.4	3.2	4.0	5.0	6.3
Power input[3]	**MCA**	**A**	0.15		0.17	0.19	0.29	0.40
	MFA	**A**	18	21	24	27	30	40
Fan motor type			DC					
Air flow rate[4]		**m³/h**	460/440/420/400/380/360/340	500/470/440/410/390/370/340	540/510/470/430/400/370/340	580/540/500/460/420/380/340	720/670/620/560/510/460/410	860/780/700/620/550/480/410
Sound pressure level[5]		**dB(A)**	32/31/30/30/29/28/27	33/32/31/30/29/28/27	35/34/33/32/31/30/28	37/36/34/33/31/30/28	37/35/33/32/31/30/29	41/39/37/35/33/31/29
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	750 x 295 x 265				950 x 295 x 265	
	Packed dimensions (W x H x D)	**mm**	875 x 385 x 360				1075 x 385 x 360	
	Net/gross weight	**kg**	9.0/11		10.0/12		11.5/14	
Throttle type			Electronic expansion valve					
Design pressure (H/L)		**MPa**	4.4/2.6					
Refigerant type			R410A/R32					
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7					
	Drain pipe	**mm**	OD ø 16					

Model			AF2-W 71-1	AF2-W 80-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz	
Cooling capacity[1]		**kW**	7.1	8.0
Heating capacity[2]		**kW**	8.0	9.0
Power input[3]	**MCA**	**A**	0.96	0.98
	MFA	**A**	15	
Fan motor type			DC	
Air flow rate[4]		**m³/h**	1220/1120/1030/940/850/750/660	1380/1260/1140/1020/900/780/660
Sound pressure level[5]		**dB(A)**	44/42/40/38/36/34/32	45/43/41/39/37/35/32
Main Body	**Net dimensions (W x H x D)**[6]	**mm**	1200 x 295 x 265	
	Packed dimensions (W x H x D)	**mm**	1315 x 385 x 360	
	Net/gross weight	**kg**	15.0/18.0	
Throttle type			Electronic expansion valve	
Design pressure (H/L)		**MPa**	4.4/2.6	
Refigerant type			R410A/R32	
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ø 15.9	
	Drain pipe	**mm**	OD ø 16	

[1] Indoor temperature 27 °C DB; 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Ceiling/Floor Indoor Units AF2-CF

Only for R410 systems

Height 674 mm, with automatic swing function for equal flow distribution

This AF2-CF family can only be
connected to R410 outdoor units due to refrigerant regulation

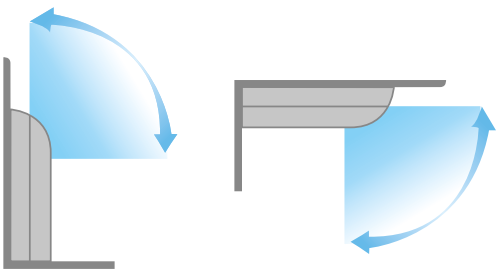
- Automatic restart
- Automatic addressing
- Follow me function (with wired controller)
- Auto swing function
- Anti-cold air function
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included
- Washable filter

Highlights

- External ON/OFF switch
- Auto swing function
- Flexible installation – on the floor or on the ceiling

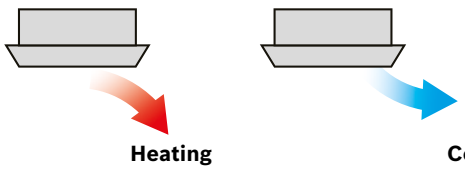
Flexible Installation

The unit can be installed on the ceiling or on the floor (upright on the wall). Its single flow design is also ideal for corner installation.



Auto Swing Function

The automatic swing mechanism distributes the air flow equally in the room. It also improves temperature balance.



Technical Data – Ceiling/Floor Indoor Units AF2-CF

Model			AF2-CF 36-1	AF2-CF 45-1	AF2-CF 56-1	AF2-CF 71-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	3.6	4.5	5.6	7.1
Heating capacity[2]		**kW**	4.0	5.0	6.3	8.0
Power input[3]	**MCA**	**A**	0.20	0.28	0.43	0.45
	MFA	**A**	15			
Air flow rate[4]		**m^3/h**	564/539/514/492/467/445/424	712/674/637/603/565/531/500	927/883/840/794/751/707/665	1128/1062/1024/926/860/791/729
Sound pressure level[5]		**dB(A)**	32/30/29/28/27/26/25	36/35/34/33/32/31/30	43/41/40/38/36/34/33	43/40/39/37/35/34/33
Sound power level		**dB(A)**	43/42/40/39/38/38/37	47/45/45/43/42/41/40	54/53/51/50/48/47/45	54/53/52/51/49/48/48
Body	**Net dimensions (W x H x D)**[6]	**mm**	1069 x 674 x 234			1284 x 674 x 234
	Packed dimensions (W x H x D)	**mm**	1190 x 755 x 313			1405 x 755 x 323
	Net/gross weight	**kg**	24.7/29.5			29.8/34.8
Design pressure (H/L)		**MPa**	4.4/1.5			
Refigerant type			R410A/R32			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7			ø 9.52/ø 15.9
	Drain pipe	**mm**	OD ø 25			

Model			AF2-CF 80-1	AF2-CF 90-1	AF2-CF 112-1	AF2-CF 140-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz			
Cooling capacity[1]		**kW**	8.0	9.0	11.2	14.0
Heating capacity[2]		**kW**	9.0	10.0	12.5	16.0
Power input[3]	**MCA**	**A**	0.60	0.75		1.25
	MFA	**A**	15			
Air flow rate[4]		**m^3/h**	1300/1218/1138/1057/982/904/824	1480/1397/1302/1218/1138/1056/979	1648/1530/1469/1292/1178/1067/956	2206/2070/1937/1810/1677/1516/1402
Sound pressure levelL[5]		**dB(A)**	45/44/42/40/38/36/34	48/47/46/44/42/40/37	44/42/41/39/37/35/33	51.5/50/48/46/44/42/40
Sound power level		**dB(A)**	55/53/51/50/49/46/44	58/57/55/54/52/50/49	56/54/53/51/49/47/45	63/62/60/58/56/54/53
Body	**Net dimensions (W x H x D)**[6]	**mm**	1284 x 674 x 234		1649 x 674 x 234	
	Packed dimensions (W x H x D)	**mm**	1405 x 755 x 323		1770 x 755 x 323	
	Net/gross weight	**kg**	29.8/34.8		36.4/42.7	
Design pressure (H/L)		**MPa**	4.4/1.5			
Refigerant type			R410A/R32			
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 9.52/ø 15.9			
	Drain pipe	**mm**	OD ø 25			

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Floor Indoor Units AF2-FC

Only for R410 systems

Height 495 mm or 591 mm, highly efficient and very quiet

This AF2-CF family can only be connected to R410 outdoor units due to refrigerant regulation

- Automatic restart
- Automatic addressing
- Follow me function (with wired controller)
- Anti-cold air function
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included
- Washable filter

Highlights

- Compact design: 200 mm depth and 495/591 mm height
- External ON/OFF switch
- Return air from bottom

Modern Design

The units fit into any room thanks to modern design.

Convenient Maintenance

The standard filter is easy to remove and clean.

High Efficiency and Silent Operation

The brushless DC fan motor is highly efficient and very quiet.

Technical Data – Floor Indoor Units AF2-FC

Model			AF2-FC 22-1	AF2-FC 28-1	AF2-FC 36-1	AF2-FC 45-1	AF2-FC 56-1	AF2-FC 71-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz					
Cooling capacity[1]		**kW**	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity[2]		**kW**	2.4	3.2	4.0	5.0	6.3	8.0
Power input[3]	**MCA**	**A**	0.5				0.6	
	MFA	**A**	15					
Air flow rate[4]		**m³/h**	498/486/475/464/453/441/430		508/491/474/458/441/424/407	692/665/637/610/582/555/528	811/785/759/732/706/680/653	930/895/860/825/790/755/721
Sound pressure level[5]		**dB(A)**	32.5/32/31.5/31/30.5/30/29		35/34/33/32/31/30/29	38/37/36/35/34/32.5/31.5	35/34.5/34/33/32.5/32/31	39.5/39/38/37/36/35/34
Sound power level		**dB(A)**	51/50/49/49/48/48/48		51/50/49/48/47/47/46	53/53/52/51/50/49/48	51/50/50/50/49/49/48	54/53/52/51/50/50/49
Body	**Net dimensions (W x H x D)**[6]	**mm**	1020 x 495 x 200			1240 x 495 x 200	1360 x 591 x 220	
	Packed dimensions (W x H x D)	**mm**	1125 x 595 x 285			1345 x 595 x 285	1465 x 695 x 285	
	Net/gross weight	**kg**	21.1/26.8		21.9/27.6	26.3/32.4	32.1/39.4	33.3/41.1
Design pressure (H/L)		**MPa**	4.4/2.6					
Refigerant type			R410A/R32					
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7					ø 9.52/ø 15.9
	Drain pipe	**mm**	OD ø 18.5					

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest to the lowest, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured at 1 m in front of the unit and at a height of 1.5 m in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Air Flux – Floor Indoor Units AF2-F

Only for R410 systems

Height 470 mm or 566 mm, highly efficient and very quiet

This AF2-CF family can only be connected to R410 outdoor units due to refrigerant regulation

- Automatic restart
- Automatic addressing
- Follow me function (with wired controller)
- Anti-cold air function
- DC fan motor
- Seven-speed fan
- Electronic expansion valve included
- Washable filter

Highlights

- Compact design: 200 mm depth and 470/566 mm height (all models)
- External ON/OFF switch
- Return air from bottom
- External static pressure up to 60 Pa enabling installations with air duct

The Perfect Solution for Interior Design

Concealed installation and only 210 mm depth are the perfect conditions for creating clean interior lines. Space saving can easily be realised by installing the unit at the edge of the room.

Easy Maintenance

The standard filter is easy to remove and clean. All metal parts are galvanised for maximum corrosion protection.

High Efficiency and Silent Operation

The brushless DC fan motor is highly efficient and very quiet.

Technical Data – Floor Indoor Units AF2-F

Model			AF2-F 22-1	AF2-F 28-1	AF2-F 36-1	AF2-F 45-1	AF2-F 56-1	AF2-F 71-1
Power supply		**V/Hz**	1-phase, 230 V, 50 Hz					
Cooling capacity[1]		**kW**	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity[2]		**kW**	2.4	3.2	4.0	5.0	6.3	8.0
Power input[3]	**MCA**	**A**	0.5				0.6	
	MFA	**A**	15					
Air flow rate[4]		**m³/h**	473/464/454/449/439/431/426		524/503/488/ 471/450/427/408	636/611/584/ 557/533/507/483	781/756/738/ 717/683/651/624	928/893/865/ 834/803/770/739
Sound pressure level[5]		**dB(A)**	34.5/34/33.5/32.5/32/31/30.5		36.5/35.5/34.5/ 34/33/32/31	37/36/35/34/ 33/32/30	36.5/36/35/34/ 33.5/32.5/31.5	40.5/39.5/38.5/ 37.5/36.5/ 36/34.5
Sound power level		**dB(A)**	49/48/48/47/47/46/46		51/50/49/48/47/ 46/46	52/51/50/49/48/ 47/46	51/51/50/49/48/ 48/47	55/54/53/52/52/ 51/50
Body	**Net dimensions (W x H x D)**[6]	**mm**	915 x 470 x 200			1133 x 470 x 200	1253 x 566 x 200	
	Packed dimensions (W x H x D)	**mm**	985 x 555 x 255			1205 x 555 x 255	1325 x 650 x 255	
	Net/gross weight	**kg**	16.7/22.7		17.4/23.4	20.5/27.4	25.2/32.9	26.8/34.7
Design pressure (H/L)		**MPa**	4.4/2.6					
Refigerant type			R410A/R32					
Pipe connections	**Liquid/Gas pipe**	**mm**	ø 6.35/ø 12.7					ø 9.52/ø 15.9
	Drain pipe	**mm**	OD ø 18.5					

[1] Indoor temperature 27 °C DB, 19 °C WB; outdoor temperature 35 °C DB; equivalent refrigerant piping length 7.5 m with zero level difference.
[2] Indoor temperature 20 °C DB; outdoor temperature 7 °C DB, 6 °C WB; equivalent refrigerant piping length 7.5 m with zero level difference.
[3] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[4] Fan motor speed and air flow rate are from the highest to the lowest, total 7 rates for each model.
[5] Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured at 1 m in front of the unit and at a height of 1.5 m in a semi-anechoic chamber.
[6] Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Accessory for Indoor Units

Display box AF2-DBB for AF2-DL, AF2-DM

Main function:

- Infrared signal receiver to control ducted VRF indoor units with an infrared remote controller

Product material:

- PCB with plastic cover

Power supply:

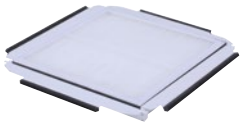
- Connect to IDU PCB CN30

Applicable IDU types:

- AF2-DL, AF2-DM

Optional filters for indoor units AF2-DL, AF2-DM, AF2-4CR, AF2-4CC

F6 filter for 4CC



F6 filter for 4CR

G3 filter for 4CR

G3 + H12 or
G3 + F7 for DM

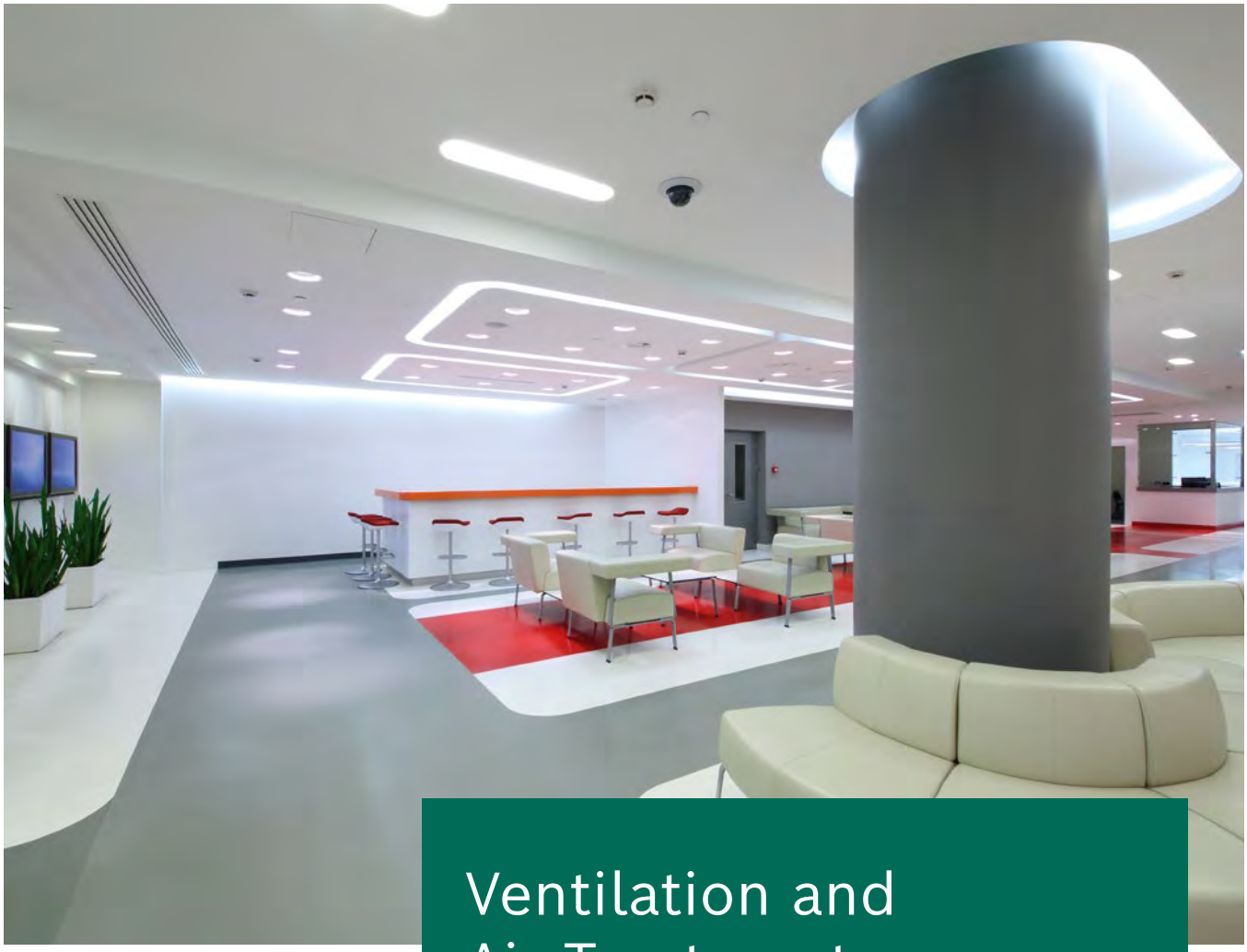
Part numbers, net dimensions and net weight

IDU type	Product type	Filter classification
AF2-DL	AF2-FF6-DL-A	F6 filter for DL 15-28
	AF2-FF6-DL-B	F6 filter for DL 36
	AF2-FF6-DL-C	F6 filter for DL 45-56
	AF2-FF6-DL-D	F6 filter for DL 71
	AF2-FF6-DL-E	F6 filter for DL 80-112
AF2-DM	AF2-FH12-DM-A	G3+H12 filter for DM + Range 22-45
	AF2-FH12-DM-B	G3+H12 filter for DM + Range 56-71
	AF2-FH12-DM-C	G3+H12 filter for DM + Range 80-90
	AF2-FH12-DM-D	G3+H12 filter for DM + Range 112-160
	AF2-FF7-DM-A	G3+F7 filter for DM + Range 22-45
	AF2-FF7-DM-B	G3+F7 filter for DM + Range 56-71
	AF2-FF7-DM-C	G3+F7 filter for DM + Range 80-90
	AF2-FF7-DM-D	G3+F7 filter for DM + Range 112-160
AF2-4CR	AF2-FF6-4CR	F6 filter for 4CR
	AF2-FG3-4CR	G3 filter for 4CR
AF2-4CC	AF2-FF6-4CC	F6 filter for 4CC

Main function:

- Optional filters with high efficiency class where needed.


BOSCH



Ventilation and Air Treatment

DX-AHU connection kits – AHU Kit-F

For implementation of external heat exchanger in Air Handling Units

- Easy integration of VRF outdoor units to DX-AHU units with the help of AHU Kits.
- Capacity from 1.8 - 56 kW
- 4 AHU-Kits-F cascadable up to 224 kW
- Capacity or temperature control by 0 - 10 V signal

AHU Kit-F consists of

- PCB
- EEV
- Sensors
- Controller

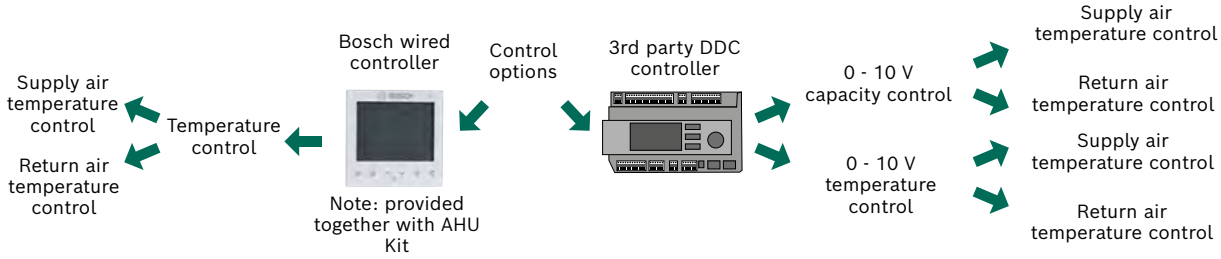

PCB


EEV

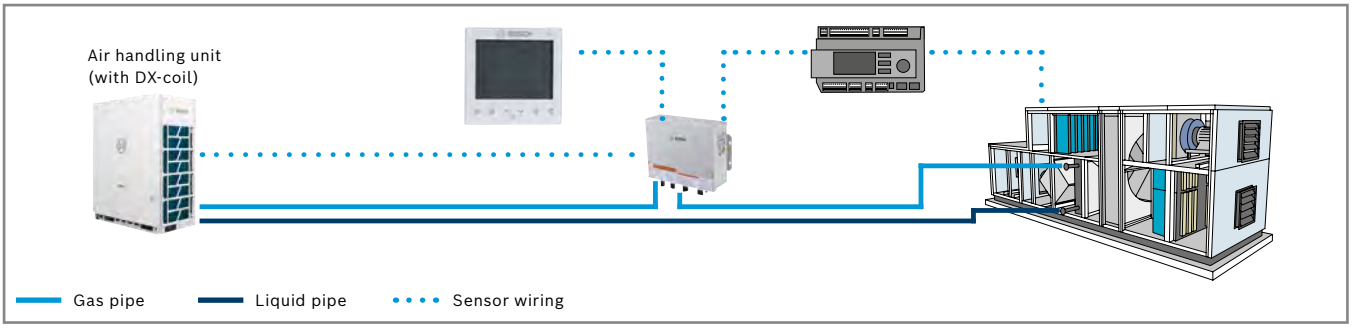

Sensors


Controller

Control Options



System Overview (only DX-AHU)



Selection

Important Requirements

The table below shows the most important criteria and values to be met for easy AHU Kits integration into external systems.

No	Criteria	Unit	Value
1	Refrigerant Type		R-410A/R32
2	Summer / Winter Conditions, Ambient temperature (For selecting outdoor unit model, actual capacity of outdoor unit)	°C, DB, %RH	Depending on the location of the project
3	DX coil cooling capacity	kW	Information must be provided by customer
4	DX coil heating capacity	kW	Information must be provided by customer
5	Maximum actual piping length between AHU Kit – DX coil	m	8
6	Maximum actual piping length between AHU Kit – outdoor unit	m	220
7	Number of inlet-outlet of DX coil (Depends on EEV qty)	Pcs	Information must be provided by customer
8	Maximum capacity for one DX system	kW	56 x 4
9	Maximum EEV number that can be connected to one system	Pcs	4
10	Evaporation temperature for refrigerant (default)	°C	6
11	Condensation temperature for refrigerant (default)	°C	48
12	DX coil air inlet temperature in heating mode – Minimum	°C	+5
13	DX coil air inlet temperature in cooling mode – Maximum	°C	+43
14	DX coil volume (min-max)	dm^3	See table “Capacity Range“
15	DX coil pressure drop (refrigerant side) (min-max)	kPa	10 - 30
16	Combination ratio	%	50 - 100
17	Control system		See section “Control Options“

Compatibility Matrix

Indoor unit	Capacity control method		Outdoor unit AF4300A/ AF5301A (C)	Connection rate	
AHU Kit-F	Set temperature input[1]	Air discharge control	Yes	Indoor/outdoor unit	50 - 100 %
		Air return control	Yes		
	Capacity value input	Variable capacity control[2]	No		
AHU Kit-F + indoor unit	Set temperature input	Air discharge control	No		
		Air return control	No		
	Capacity value input	Variable capacity control	No		
AHU Kit-F + AHU Kit-D	Set temperature input	Air discharge control	No	–	
		Air return control	No	–	
		Variable capacity control	No	–	

[1] Input the set temperature (Ts) using the factory supplied controller or a 0 - 10 V third-party controller.
[2] The temperature difference is programmed by a third-party controller to be converted to a 0-10 V signal. The capacity is adjusted according to the voltage value.

Technical Data

Model			AHU KIT 00 F	AHU KIT 01 F	AHU KIT 02 F	AHU KIT 03 F
Capacity		kW	1.8 - 9	9 - 20	20 - 36	36 - 56
Compatibility to outdoor unit			AF5301A (C), AF4300A			
Power supply	**Voltage**	V	230			
	Phase	ph	1			
	Frequency	Hz	50			
Piping diameter	**Liquid in**	mm	ø 9.53[1)]	ø 9.53	ø 12.7	ø 15.9
	Liquid out	mm	ø 9.53[1)]	ø 9.53	ø 12.7	ø 15.9
Dimension	**Unit (W x H x D)**	mm	479 x 382 x 134			
	Package Unit (H x W x D)	mm	565 x 470 x 245			
Weight	**Unit**	kg	6.2		6.4	
	Package Unit	kg	12.1		12.3	
Operation range	**Cooling-Inlet air temperature**	°C	17 - 43			
	Heating-Inlet air temperature	°C	5 - 30			
IP class			IPX4			

[1)] ø 6.35 for < 5.6 kW

Capacity Range

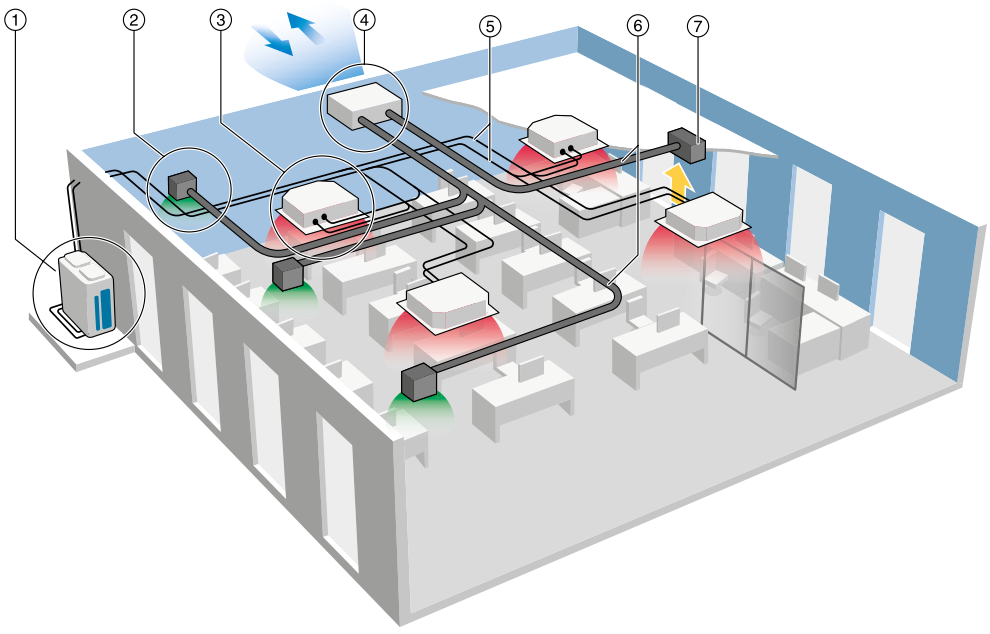
Model	Nominal cooling capacity HP	Cooling capacity range kW	Heating capacity range kW	Internal volume of the copper tube of the heat exchanger cm^3	Air volume m^3/h	
					Return air temperature	Supply air temperature
AHU KIT 00 F	0.8	1.8 - 2.8	2.2 - 3.2	450 - 670	358 - 493	179 - 269
	1	2.8 - 3.6	3.2 - 4	560 - 840	448 - 616	224 - 336
	1.2	3.6 - 4.5	4 - 5	670 - 1000	538 - 739	269 - 403
	1.7	4.5 - 5.6	5 - 6.3	950 - 1420	762 - 1047	281 - 571
	2	5.6 - 7.1	6.3 - 8	1,120 - 1,670	896 - 1232	448 - 672
	2.5	7.1 - 8	8 - 9	1,400 - 2,090	1,120 - 1,540	560 - 840
	3	8 - 9	9 - 10	1,670 - 2,510	1,344 - 1,848	672 - 1,008
AHU KIT 01 F	3.2	9 - 10	10 - 11.2	1,790 - 2,680	1,434 - 1,971	717 - 1,075
	3.6	10 - 11.2	11.2 - 12.5	2,010 - 3,010	1,613 - 2,218	860 - 1,210
	4	11.2 - 14	12.5 - 16	2,230 - 3,350	1,792 - 2,464	896 - 1,344
	5	14 - 16	16 - 18	2,790 - 4,190	2,240 - 3,080	1,120 - 1,680
	6	16 - 18	18 - 20	3,350 - 5,020	2,688 - 3,696	1,344 - 2,016
	6.5	18 - 20	20 - 22	3,880 - 5,660	2,912 - 4,004	1,456 - 2,184
AHU KIT 02 F	7	20 - 22	22 - 25	4,420 - 6,310	3,136 - 4,312	1,568 - 2,352
	8	22 - 25	25 - 30	5,490 - 7,600	3,584 - 4,928	1,688 - 1,792
	10	25 - 30	30 - 36	6,070 - 8,380	4,480 - 6,160	2,240 - 3,360
	12	30 - 36	36 - 40	6,200 - 10,050	5,376 - 7,392	2,688 - 4,032
AHU KIT 03 F	14	36 - 40	40 - 45	7,750 - 11,730	6,272 - 8,624	3,136 - 4,704
	16	40 - 45	45 - 50	7,850 - 13,400	7,168 - 9,856	3,584 - 5,376
	18	45 - 50	50 - 56	9,020 - 15,080	8,064 - 11,088	4,032 - 6,048
	20	50 - 56	56 - 62	10,550 - 16,750	8,960 - 12,320	4,480 - 6,720

Energy Recovery Ventilation Units (ERV-2)

Ideal solution for providing fresh air next to VRF air conditioners

- Energy recovery ventilation is using the exhaust air to pre-condition the supply air by using a heatexchanger which also recovers the humidity of the air
- Perfect ventilation solution (next to VRF cooling and heating system) for shops, restaurants or offices
- Wide air flow range: Air flow rate from 300 up to 1,000 m^3/h
- Thermal efficiency up to 80 % (300 m^3/h unit)
- Special heat exchange element made from high efficiency paper
- New communication protocol: Super Link
- In accordance with EU regulations
- Built-in class F7 filter for air supply side and class M5 filter for exhaust air side
- Built-in CO2 sensor ensures indoor air quality
- Possibility of free cooling when the outdoor temperature is lower than the indoor temperature (e.g. at night or in low season)
- Several operation modes: Energy recovery, By-pass, Auto, Free-cooling
- Reduced energy consumption thanks to DC fan motors
- Free dry contacts to connect fire alarm or electrical heater

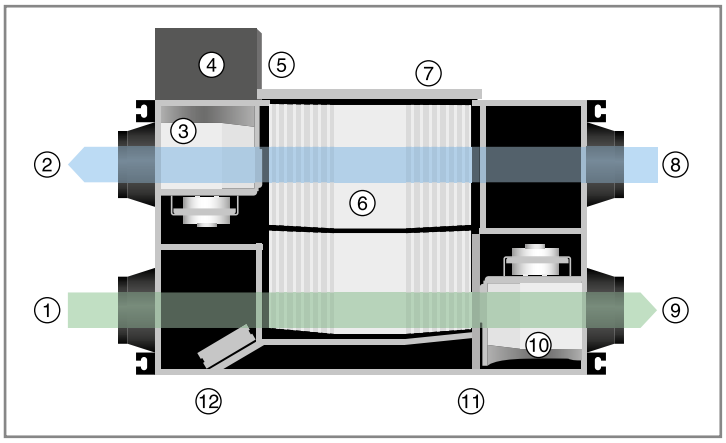
System Overview



1 VRF outdoor unit
2 Fresh air
3 VRF indoor unit
4 ERV unit
5 Copper pipes
6 Air ducts
7 Exhaust air

Features

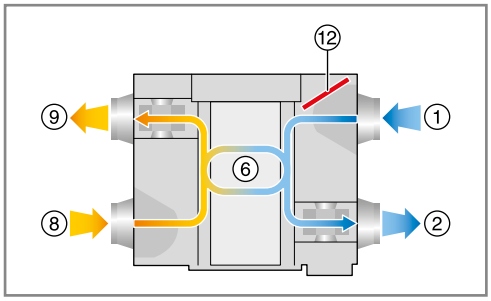
Paper Heat Exchanger



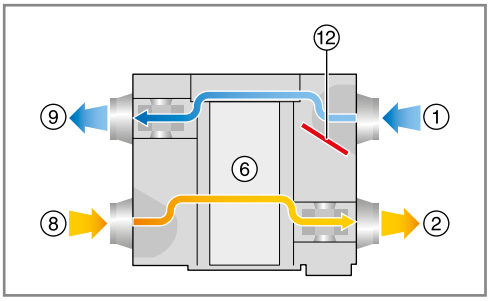
Return air
Supply air
Supply fan
e-box
F7 class filter at supply side
Heat exchanger
Access panel
Fresh air
Exhaust air
Exhaust fan
⑪ M5 class filter at exhaust side
⑫ Byp-pass damper

New heat exchanger element is produced from a special paper that is processed with chemical treatment to ensure optimum results in temperature, humidity and cooling recovery.

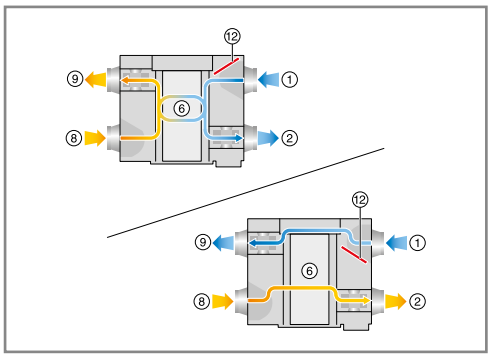
Several Operation Modes



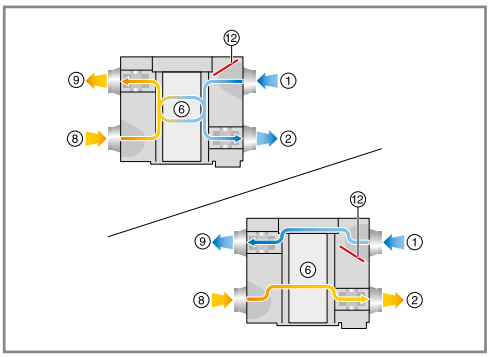
Energy recovery mode
On summer days: the high-temperature outdoor air is cooled by the indoor exhaust air. In winter: low-temperature outdoor air is heated by indoor exhaust air.
The energy from the exhaust air can be reclaimed – energy efficiency improves.



By-pass mode
In areas with mild climate or in the low season: by slight temperature and humidity difference between the indoor and the outdoor ambient the unit works like a conventional fan. Supply and exhaust fans operate at the same speed Low/Medium/High/Auto.



Auto mode
The controller selects the energy recovery mode or the by-pass mode according to the temperature difference between outdoor and indoor.
Fan speed must be set at automatic fan speed – ERV is controlled according to CO_2 level. At |T1-T4|≥5°C:
Heat exchange mode, at |T1-T4|<5: Bypass mode.
The minimum change interval is 1 hour.

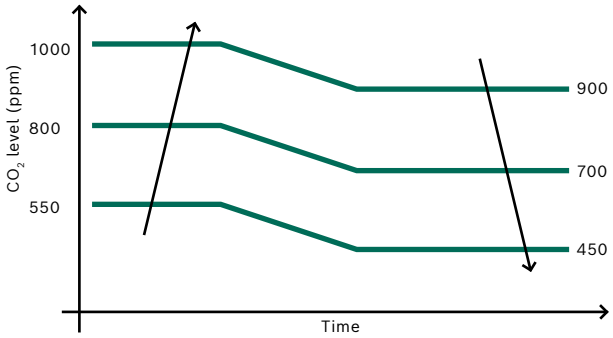


Free cooling mode
Fan speed can be set to Low/Medium/High when T1<T4 – heat exchange mode is active.When T1≥T4 free-cooling mode is activated in by-pass mode. Minimum change interval is 1 hour.

T1: indoor ambient temperature
T4: outdoor ambient temperature

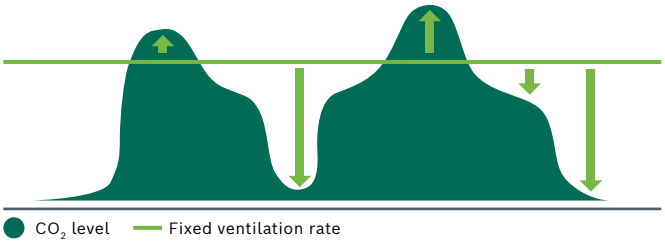
Features

Built-in CO_2 Sensor



Fan Speed High
Fan Speed Medium

Fan Speed Low
Fan OFF

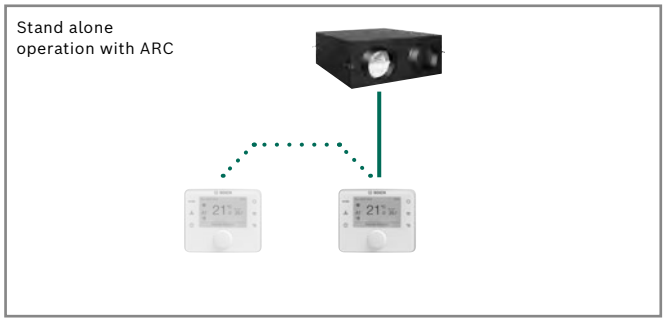


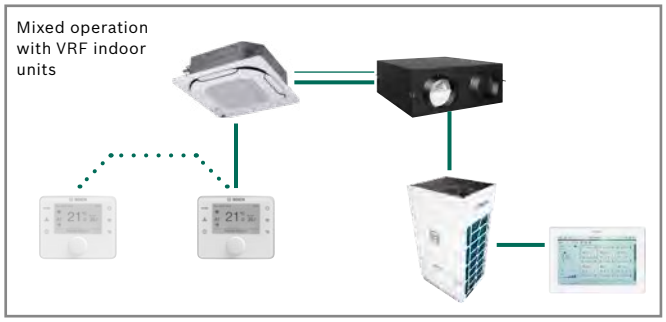
Increase fan speed to increase air volume to dilute the concentration of CO_2 for better comfort

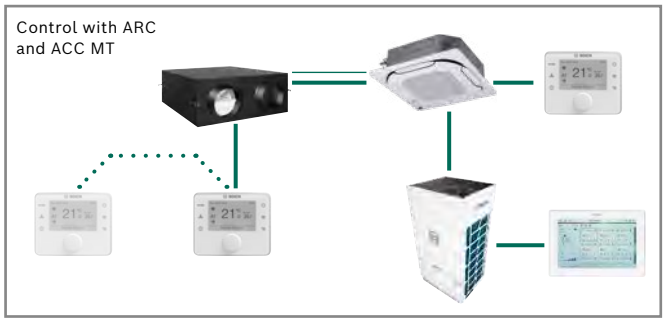
Decrease fan speed to decrease air volume for more energy saving

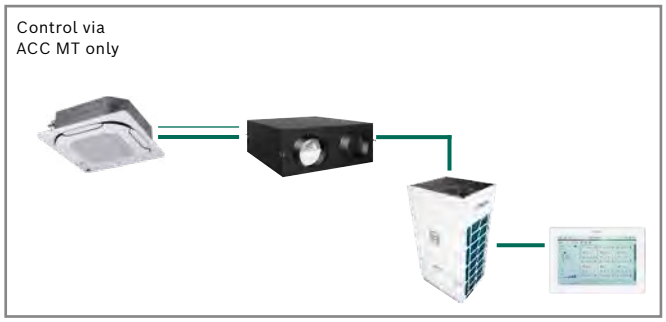
- CO_2 sensor is activated by selecting auto mode.
  The fan operates at auto mode speed.
- The unit turns off at CO_2 level below < 450 ppm.
- After 2 hours the unit starts to operate at the low fan speed.
- After 5 minutes, the CO_2 sensor rechecks the CO_2 content and adjusts the fan speed accordingly (if necessary).
  (This process spares switching ON and OFF and prevents high CO_2 levels in small rooms).

Control Options









ARC C (Slave)
ARC C (Master)
X1-X2
ERV unit
M1; M2 (IDU-ODU connection)

VRF outdoor unit
XYE (ODU-ACC connection)
ACC MT central controller
VRF indoor unit
D1-D2 group control

Technical Data

		ERV 300-2	ERV 400-2	ERV 500-2	ERV 800-2	ERV 1000-2
Power supply voltage	AC V	230				
Power supply frequency	HZ	50				
Power supply wire phases	Ph	1				
Power supply wire (code wire cross-section)	mm^2	2.5				
Power supply wire (quantity)	pcs	3				
Supply Air (fresh air) ESP[1] (high fan speed)	Pa	70	70	65	100	110
Return Air (exhaust air) ESP (high fan speed)	Pa	110	110	110	155	145
Power input (H/M/L) (incl. F7+M5 filters)	W	100/55/35	110/70/40	150/95/50	320/170/80	420/230/100
Current	A	0.84	0.97	1.2	2.4	2.9
Net dimensions (L/W/H)	mm	1195/741/272	1276/1031/272	1311/1045/390	1311/1225/390	1311/1471/390
Net/gross weight	kg	57/79	72/97	69/98	77/107	85/117
Nominal air flow	m^3/h	300/200/150	400/300/200	500/400/250	800/600/400	1000/750/500
Nominal heat transfer efficiency (H/M/L) (incl. F7+M5 filters)	%	80.4/81.8/83.5	79.2/81.1/83.3	77.2/79.4/82.5	74.9/77.1/80.8	75.4/78.0/81.4
Nominal enthalpy efficiency (H/M/L) (incl. F7+M5 filters)	%	79.4/81.2/84.0	79.6/81.8/84.2	72.3/75.6/78.6	71.1/74.4/78.0	67.3/71.1/75.0
Sound power level	dB	48	48	50	55	54
Sound pressure (H) at 1 m below unit	dB (A)	35.4	35.8	34.9	41.0	43.0
Diameter of fresh air connection	mm	144	198	244	244	244
IP rating		IPX2				
Controller		Wired controlle – ARCr				
Dirty filter reminder		Displayed on the controller. The product is equipped with a pressure differential switch. If the filter pressure drop exceeds the maximum permitted final pressure drop, an alarm is activated in the wired room controller.				

[1] ESP = external static pressure

Note:
For perfect performance, run the ERV unit at the following temperature conditions:
Outdoor temperature: -7 - 43 °C
Room temperature: 0 - 43 °C
Room humidity: < 80 %

Install a pre-heater at the air inlet duct, when air inlet temperature is below +5 °C

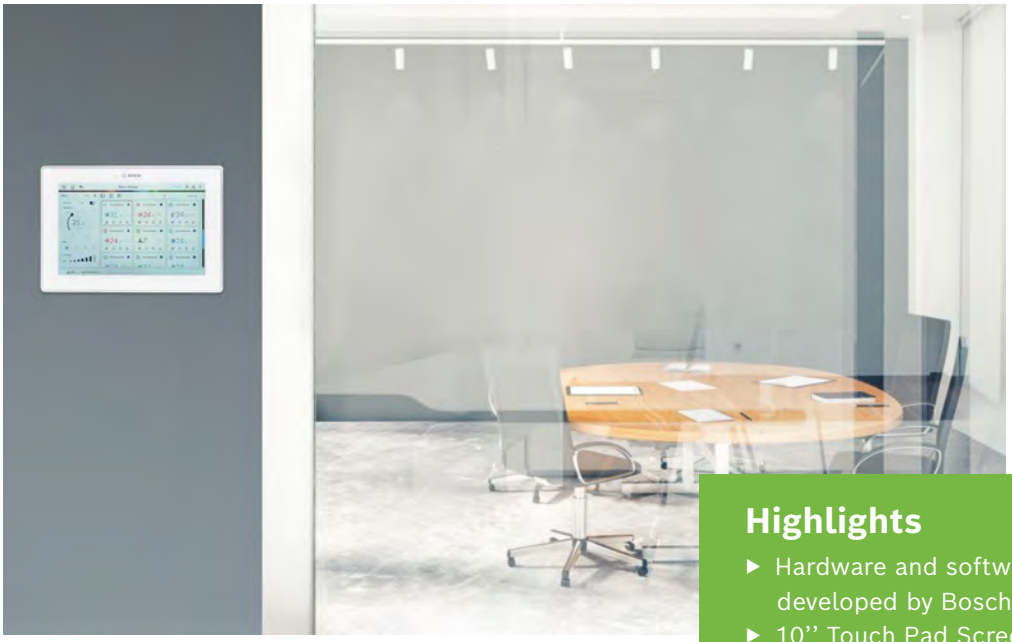
Accessories: Wired controller
Must be purchased separately to control ERV unit (wired controller (ARC C-2) is mandatory for use with ERV devices).

Controller and Accessory

Air Flux – Central Controller ACC MT

Intelligent management of air conditioning systems

The new central controller ACC MT allows intuitive and reliable operation of all connected VRF components – developed by Bosch.



Highlights

- Hardware and software developed by Bosch
- 10'' Touch Pad Screen
- Advanced functionality for professionals
- With integrated ModBUS TCP/IP gateway

ACC MT – Air Center Controller with Touch Display

- Touch pad VRF system centralized controller with easy user interface
- Expendable controlling capacity up to 256 indoor and 96 outdoor units
- Modern 10.1" touch display
- Direct connection availability for building automation system via using ModBUS TCP/IP
- System capacity management for limiting energy and increasing efficiency
- Easy access to the controller via local network connection using a computer
- Easy and sustainable updatability via USB
- Floor plan manager for better indoor unit accessibility and control
- Remote access availability with PC connection via VPN
- Energy distribution, monitoring and reporting via using power meter actual data.
- System planning with calendar and time schedule functions
- System diagnosis and real time monitoring
- Improved accessibility with user friendly dashboard
- All screens available help button for all feature and function detailed explanations.

Air Flux – Accessory for ACC MT

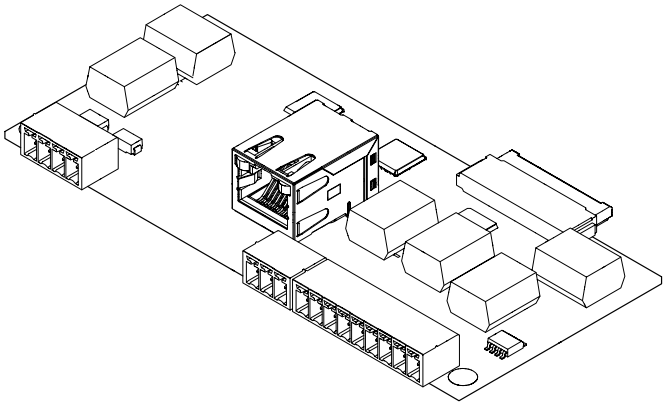
AC-CM – Converter for large and multi split

- Enables controlling large and multi split indoor units from ACC-MT, together with or without VRF systems
- Compatible with multi and large split series, Cassette, Ducted and Ceiling/Floor types' indoor units

AC-XYE – XYE Extension kit

- Enables to connect compatible gateway solutions, together with ACC-MT
- ACC-MT and external compatible gateways connections (for existing systems or ACC-MT and 3rd party use cases)
- For AF6300A C is ACC BAC-1, MOD-1 and LON-1 still a possible solution.

AC-EXP – Expansion board for ACC MT

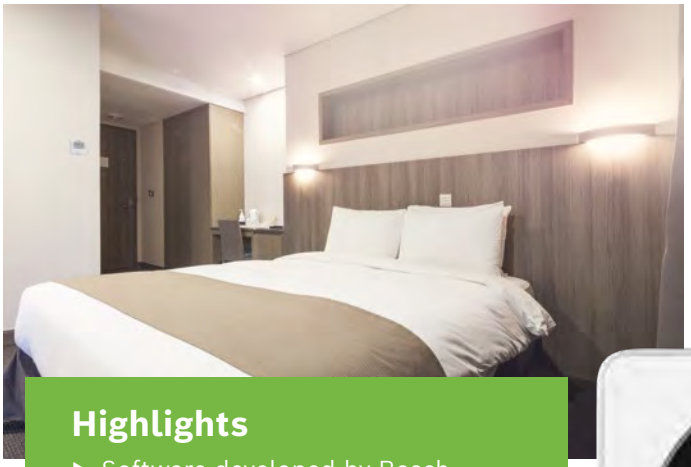


- Electronic PCB Board product could be inserted directly inside of ACC-MT.
- Expanding ACC-MT control capacity up to 256 indoor and 96 outdoor units.
- Enables advanced features:
  - Energy distribution and reporting
  - ModBUS TCP/IP connection
  - Emergency shutdown function

Air Flux – Room Controller C-2/H-2/L/C IR-2

Simply perfect air conditioning for every room

Easy control of each indoor unit via Bosch software with our in-house developed room controls.



Highlights

- Software developed by Bosch
- 7-step fan speed
- Integrated help function
- Monitor system parameters
- Easily addressable

ARC C-2 – Wired Room Controller

- 7-step fan speed
- Group control functions up to 16 indoor units
- Follow-me function for precise temperature setting
- Individual louver settings for better air comfort
- Turbo heat and cool for fast and easy comfort
- Room temperature range setting functions for automatic and energy efficient air conditioning
- Multiple scheduling for different user types
- Improved ease of use with rotary push button

ARC L – Wired Room Controller for VRF Line Up

- 7-step fan speed
- Timer on/off
- Slim and modern design
- User friendly simple interface
- Language-neutral operation
- Precise room climate control with integrated temperature sensor
- Advanced service settings for easy commissioning and installation

ARC H-2 – Wired Room Controller for Hotels

- 7-step fan speed
- Easy to use
- Context-sensitive help function
- Clear-text information line, context-sensitive
- Integrated dry contact
- Wall socket lock
- Night-silent function for particularly low-noise operation

ARC C IR-2 – Room Controller with Infrared Remote Control

- Improved energy efficiency with ECO+ function
- Soft wind for better comfort
- Individual louver settings
- Enhanced climate control with 7 step fan speed and 0.5 degree temperature set

Air Flux – ARC C-2

Wired room controller with 7-step fan speed

Highlights

- Advanced comfort settings
- Occupancy-based optimisation
- Multiple scheduling
- System diagnosis monitoring
- Scheduling for silent environment
- Controlling up to 16 indoor units in parallel

Advanced comfort settings

- 7 fan speeds and 0.5 degree temperature setting. Temperature and humidity control and follow-up with related modes for greater comfort and more precisely controlled climate conditions.

Multiple scheduling

- Possible to generate different weekly schedules for different user types

Smart energy saver with AI

- The learning algorithm of the ARC C-2, developed by Bosch, is achieving the optimum of energy saving during absence time and high comfort. It uses motion detectors on the indoor units for detection of humans in the room.

Scheduling for silent environment

- Sound level of outdoor unit can be scheduled for silent nighttime operation to avoid annoying neighbours.

Air Flux – ARC H-2

Wired room controller for hotel rooms

Highlights

- Sleep mode
- 7-step fan speed
- Easy to use
- Wall socket lock

Sleep mode

- Smart "sleep mode" automatically changes the temperature setting by +/-1 °C each hour and turns the indoor unit off after a set time.

7-step fan speed

- The controller can be used to choose from 7 fan speeds.

Air Flux – ARC L (Lite)

Wired Room Controller for VRF Line Up

Highlights

- Climate control
- Compact size
- Easy use
- Touch button flat screen

Climate Control

- 7 fan speeds and 0.5 degree temperature setting with temperature sensors for creating better climate

Compact size

- Slim and compact product design with touch buttons control
- With only 88 x 88 mm dimensions and only 22 mm height, this room controller fits well into all interiors.
- It uses the same backplate as the ARC-C controller.

Air Flux – ARC C IR-2

Room controller with infrared remote control

Highlights

- Wireless & Easy Control
- Improved air comfort
- Better energy saver with ECO+
- Self Cleaning

Enhanced Climate Control

- 7 step fan speed and 0.5 degree temperature set

Improved Air Comfort

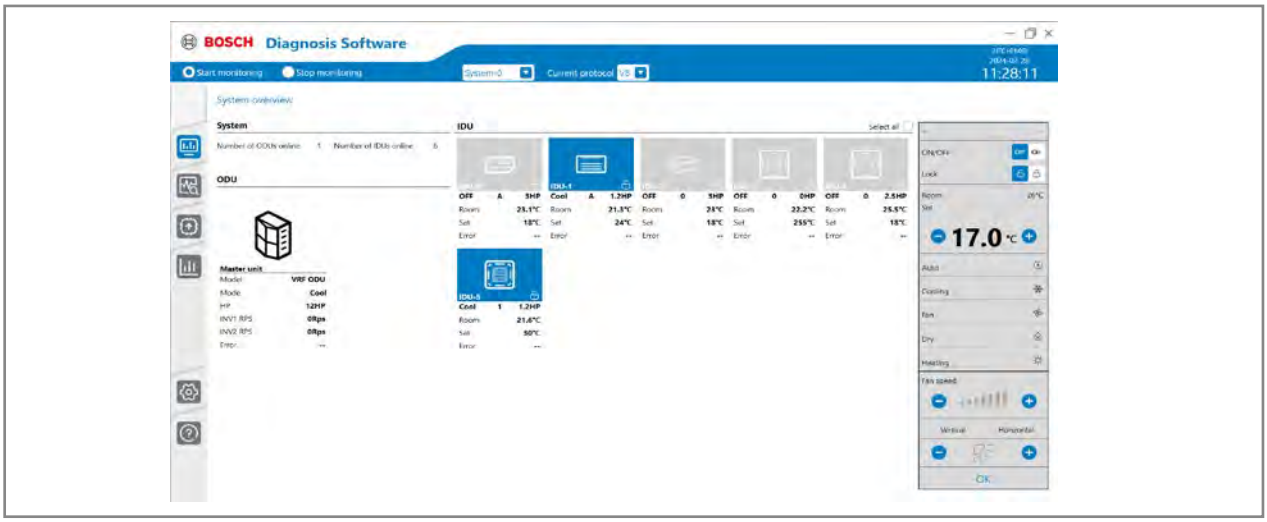
- Individual louver settings for better air distribution
- Soft wind function for comfortable air flow

Self Cleaning

- Indoor unit coil cleaning possibility with freezing and heating operations in R32 system units

Air Flux – Diagnosis Software ACC DSW-2

Tool to monitor VRF systems and diagnose system errors



Technical requirements	
Operating system	Windows 7 or above
Screen resolution	1366 x 768 or more
Computer settings	DPI must be adjusted to 100 % to ensure that the software is displayed normally.

- System settings and operating parameters can be accessed easily and data logs can be reviewed for fault prevention purposes.
- Delivery scope includes dongle and installation manual.

Main product functions

Functions
- Detailed system monitoring
- Test runs &and operations
- Multi language usage
- Unit Settings
- System data analysis
- Advanced system control

Device Monitor
- System Overview
- Parameter List
- Parameter Curve
- Refrigerant System Diagram
- Device Control

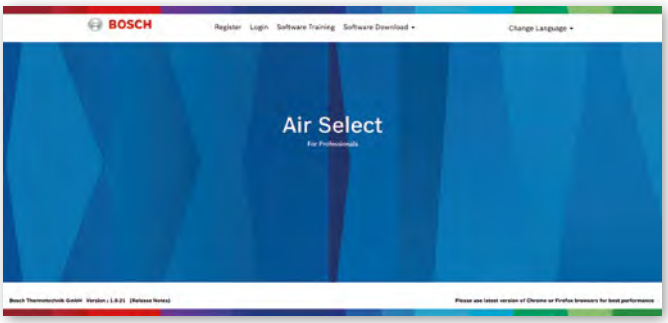
Fault Diagnosis
- Error Code list and trouble shooting

Firmware Upgrade
- Device Firmware version query
- Latest Firmware upload
- Firmware update task creation

Data Process
- Data Saving
- Data Output
- History Data load and review

Tools and Technical Summary

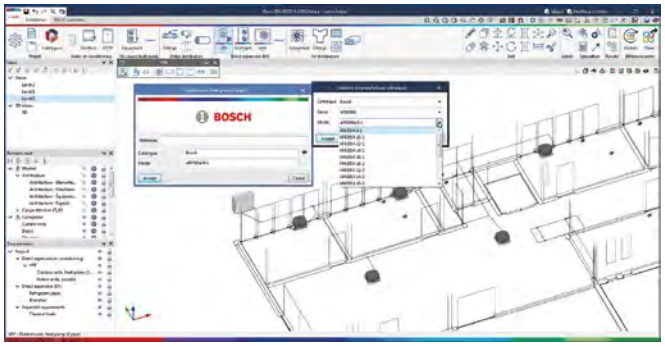
Bosch Planner Support



Bosch Air Select Selection Software

Simply easy and flexible

With the Bosch selection software Air Select, anyone can design projects without special software know-how. The selection software works with a drop-down and drag ‘n drop logic that ensures intuitive operation. Air Select is a a web-based software (bosch-airselect.com) – accessible from any computer with an internet connection. This allows flexible work from everywhere. A desktop version is also available to work independent from internet.
To get an overview of the registration process and functionality, watch this tutorial: media.video.bosch.com/media/Get+started+with+-Bosch+Air+Select/0_64sax3cs

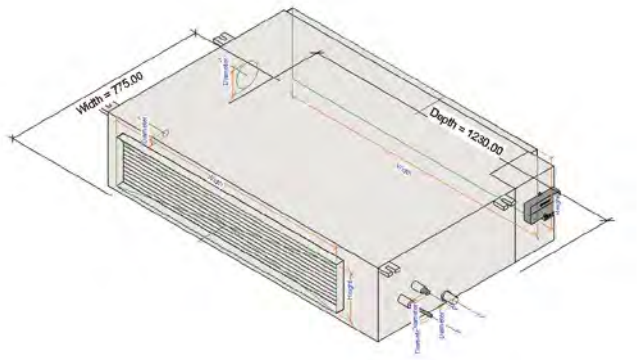


Open BIM Bosch

Simply efficient

Open BIM Bosch is a software for designing air conditioning systems. Using either a DXF template or a 3 D model, the program allows the distribution of elements and pipes within the building, the calculation of equipment capacity and pipe diameters, and the generation of project results.

https://store.bimserver.center/de/app/286/open_ bim_bosch bosch



Bosch AutoCAD and BMI Files

Simply useful

Bosch offers different file types for our climate portfolio range such as Revit (.rfa), 2D/3D AutoCAD (.dwg and .dxf) and .STEP which are very useful for planers to visualize the system layout in their building scheme.

These files are available at
https://bosch-de-bim.thernovo.com/home

Bosch Planner Guide

Simply helpful

The Bosch planner Guide for VRF systems is a kind of a summary of installation manuals with the most important information needed for a system selection: technical details such as unit dimension, capacity, weight and electrical power consumption.

General information on differences between technologies or installation drawings are helpful for VRF system selection and space requirement calculation for cascade installation.
For further technical data also Engeneering Databook is available.

Technical Data – Outdoor Units

VRF system	Rated cooling capacity[1] (kW)	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)	Max. number of indoor units -	Sound pressure level[2] (dB(A))	Pre-filled refrigerant charge (kg)	Additional refrigerant charge (kg)	Air flow rate max. (m^3/h)	SEER/ SCOP[2] -
2-pipe VRF outdoor units (R410A)											
AF5301A (C) 25-3	25.2	940	1,760	825	195	13	58	7	–	12,600	7.55/4.46
AF5301A (C) 28-3	28.0	940	1,760	825	195	16	58	7	–	12,600	7.45/4.48
AF5301A (C) 33-3	33.5	940	1,760	825	195	19	61	7	–	13,500	7.31/4.42
AF5301A (C) 40-3	40.0	940	1,760	825	218	23	63	8	–	15,600	7.35/4.39
AF5301A (C) 45-3	45.0	940	1,760	825	218	26	65	8	–	15,600	7.00/4.40
AF5301A (C) 50-3	50.0	1,340	1,760	825	277	29	65	9.3	–	22,000	7.10/4.45
AF5301A (C) 56-3	56.0	1,340	1,760	825	277	33	66	9.3	–	22,000	6.80/4.30
AF5301A (C) 62-3	61.5	1,340	1,760	825	297	36	66	11.96	–	21,500	6.70/4.45
AF5301A (C) 67-3	67.0	1,340	1,760	825	297	39	67	11.96	–	21,500	6.30/4.40
AF5301A (C) 73-3	73.0	1,880	1,760	825	373	43	68	11.96	7	29,000	5.80/4.32
AF5301A (C) 79-3	78.5	1,880	1,760	825	410	46	68	11.96	9	28,000	6.40/4.32
AF5301A (C) 85-3	85.0	1,880	1,760	825	410	50	68	11.96	9	28,000	6.25/4.25
AF5301A (C) 90-3	90.0	1,880	1,760	825	410	53	68	11.96	9	28,000	6.11/4.25
3-pipe VRF outdoor units (with heat recovery) (R410A)											
AF6300A 22 C-3	22.4	990	1,635	790	232	26	58	8	2.0	9,000	7.3/4.3
AF6300A 28 C-3	28.0	990	1,635	790	232	32	61	8	2.0	9,500	6.6/4.4
AF6300A 33 C-3	33.5	990	1,635	790	232	39	62	8	2.6	10,000	6.8/4.6
AF6300A 40 C-3	40.0	1,340	1,635	825	300	47	63	10	4.9	14,000	6.7/4.3
AF6300A 45 C-3	45.0	1,340	1,635	825	300	52	64	10	5.5	14,900	6.4/4.3
AF6300A 50 C-3	50.0	1,340	1,635	825	300	58	65	10	5.7	15,800	6.2/4.4
Mini VRF outdoor units (single-phase) (R32)											
AF4300A 8-1	7.2	1,038	864	409	77	5	53	2	–	5,200	5.8/3.8
AF4300A 10-1	9.0	1,038	864	409	77	6	53	2	–	5,200	5.7/3.8
AF4300A 12-1	12.3	1,038	864	409	94	8	55	2.85	–	5,000	7.8/4.9
AF4300A 14-1	14.0	1,038	864	409	94	10	56	2.85	–	5,000	7.4/4.8
AF4300A 16-1	15.5	1,038	864	409	94	11	56	2.85	–	5,000	7.35/4.8
AF4300A 18-1	17.5	1,038	864	409	94	12	58	2.85	–	5,500	7.1/4.8
Mini VRF outdoor units (three-phase) (R32)											
AF4300A 12-3	12.3	1,038	864	409	110	8	55	2.85	–	5,000	7.8/4.9
AF4300A 14-3	14.0	1,038	864	409	110	10	56	2.85	–	5,000	7.4/4.8
AF4300A 16-3	15.5	1,038	864	409	110	11	56	2.85	–	5,000	7.35/4.8
AF4300A 18-3	17.5	1,038	864	409	110	12	58	2.85	–	5,500	7.1/4.8

[1] Rated capacities are measured according to EN 14511.
[2] Measuring distances depending on model type and output. Detailed information → technical data books.
[3] With cassette indoor units.

VRF system	Rated cooling capacity[1] (kW)	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)	Max. number of indoor units -	Sound pressure level[2] (dB(A))	Pre-filled refrigerant charge (kg)	Additional refrigerant charge (kg)	Air flow rate max. (m^3/h)	SEER/SCOP -
Compact VRF outdoor units (three-phase) (R410A)											
AF4300A 25-3	25.2	1,130	1,760	580	177	13	56	6.1	–	11,800	7.3/4.2
AF4300A 28-3	28.0	1,130	1,760	580	177	16	57	6.1	–	12,500	7.1/4.1
AF4300A 33-3	33.5	1,130	1,760	580	180	19	58	6.4	–	12,500	6.9/4.1
AF4300A 40-3	40.0	1,130	1,760	580	187	23	59	7.4	–	12,500	6.7/4.2
AF4300A 45-3	45.0	1,250	1,760	580	214	26	60	8	–	18,500	6.8/4.2
AF4300A 50-3	50.0	1,250	1,760	580	214	29	61	8	–	20,000	6.5/4.2
AF4300A 56-3	56.0	1,250	1,760	580	234	33	61	8.5	–	18,500	6.3/4.1
AF4300A 62-3	61.5	1,250	1,760	580	234	36	62	8.5	–	19,000	6.2/4.0

[1] Rated capacities are measured according to EN 14511.
[2] Measuring distances depending on model type and output. Detailed information → technical data books.

Product Data on Energy Consumption

The following product data complies with the requirements of Regulation (EU) 626/2011.

Product data	Symbol	Unit	AF4300A 8-1	AF4300A 10-1
Model identifier, indoor units	–	–	2 x AF2-DM 15-1 P (7733702264) + 2 x AF2-DM 22-1 P (7733702265)	3 x AF2-DM 22-1 P (7733702265) + 1 x AF2-DM 28-1 P (7733702266)
Model identifier, outdoor units	–	–	Air Flux 4300A 8-1 (7733702217)	Air Flux 4300A 10-1 (7733702218)
Refrigerant type	–	–	R32	
GWP[1]	–	–	675	
Sound power level cooling (inside/outside)	L_{wa}	dB(A)	58/58	
SEER	–	–	5.8	5.7
Energy efficiency class, cooling[2]	–	–	A+	
Annual electricity consumption, cooling[3]	QCE	kWh/y	434	553
Design output, cooling	$P_{designc}$	kW	7.2	9.0
Sound power level heating (inside/outside)	L_{wa}	dB(A)	68/68	69/69
SCOP average climate	–	–	3.8	
Energy efficiency class, heating with average climate[2]	–	–	A	
Annual electricity consumption, heating[3]	QHE	kWh/y	2063	2211
Design output, heating with average climate	$P_{designh}$	kW	5.6	6.0
Declared capacity at reference design conditions - heating average climate	–	kW	7.2	9.0
Back up heating capacity at reference design conditions - heating average climate	–	kW	0	
Heating season warmer	–	–	Yes	
Heating season colder	–	–	No	

[1] Global warming potential
Refrigerant leakage contributes to climate change. Refrigerant with lower GWP would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains refrigerant fluid with a GWP equal to [675]. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be [675] times higher than 1 kg of CO_2, over a period of 100 years.
[2] Energy efficiency class spectrum: A+++...D
[3] Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

Overview of Connected Electrical Loads

VRF system	Voltage				Power input[1]	
	Range (V)	Minimum (V)	Maximum (V)	Frequency (Hz)	MCA[2] (A)	MFA[3] (A)
2-pipe VRF outdoor units						
AF5301A (C) 25-3	380 - 415	342	440	50	17.0	20.7
AF5301A (C) 28-3	380 - 415	342	440	50	18.8	25.0
AF5301A (C) 33-3	380 - 415	342	440	50	23.0	32.0
AF5301A (C) 40-3	380 - 415	342	440	50	26.2	32.0
AF5301A (C) 45-3	380 - 415	342	440	50	31.4	40.0
AF5301A (C) 50-3	380 - 415	342	440	50	33.0	40.0
AF5301A (C) 56-3	380 - 415	342	440	50	40.5	50.0
AF5301A (C) 62-3	380 - 415	342	440	50	41.5	50.0
AF5301A (C) 67-3	380 - 415	342	440	50	46.0	63.0
AF5301A (C) 73-3	380 - 415	342	440	50	48.0	63.0
AF5301A (C) 79-3	380 - 415	342	440	50	51.0	63.0
AF5301A (C) 85-3	380 - 415	342	440	50	56.8	80.0
AF5301A (C) 90-3	380 - 415	342	440	50	57.0	80.0
3-pipe VRF outdoor units (with heat recovery)						
AF6300A 22 C-3	380 - 415	342	440	50	24.0	32.0
AF6300A 28 C-3	380 - 415	342	440	50	25.2	32.0
AF6300A 33 C-3	380 - 415	342	440	50	26.4	32.0
AF6300A 40 C-3	380 - 415	342	440	50	33.1	40.0
AF6300A 45 C-3	380 - 415	342	440	50	33.1	40.0
AF6300A 50 C-3	380 - 415	342	440	50	40.8	50.0

[1] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[2] MCA = Minimum current
[3] MFA = Maximum fuse rating

VRF system	Voltage				Power input[1]	
	Range (V)	Minimum (V)	Maximum (V)	Frequency (Hz)	MCA[2] (A)	MFA[3] (A)
Mini VRF outdoor units (1-phase)						
AF4300A 8-1	220 - 240	198	264	50	21.3	25.0
AF4300A 10-1	220 - 240	198	264	50	24.0	25.0
AF4300A 12-1	220 - 240	198	264	50	32.0	32.0
AF4300A 14-1	220 - 240	198	264	50	35.0	40.0
AF4300A 16-1	220 - 240	198	264	50	40.0	40.0
AF4300A 18-1	220 - 240	198	264	50	40.0	40.0
Mini VRF outdoor units (3-phase)						
AF4300A 12-3	380 - 415	342	440	50	14.0	20.0
AF4300A 14-3	380 - 415	342	440	50	15.0	20.0
AF4300A 16-3	380 - 415	342	440	50	17.0	20.0
AF4300A 18-3	380 - 415	342	440	50	17.0	20.0
AF4300A 25-3	380 - 415	342	456	50	17.0	20.0
AF4300A 28-3	380 - 415	342	456	50	21.0	25.0
AF4300A 33-3	380 - 415	342	456	50	23.0	32.0
AF4300A 40-3	380 - 415	342	456	50	28.0	32.0
AF4300A 45-3	380 - 415	342	456	50	30.0	40.0
AF4300A 50-3	380 - 415	342	456	50	33.0	40.0
AF4300A 56-3	380 - 415	342	456	50	40.0	50.0
AF4300A 62-3	380 - 415	342	456	50	45.0	50.0

[1] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[2] MCA = Minimum current
[3] MFA = Maximum fuse rating

Notice regarding cascading operation:

- The actual value of the combined unit is the sum total of the individual units.
  Example:
  Output of outdoor unit (kW): 33 + (40 × 2) = 113
  MCA (A): 23.0 + (26.2 × 2) = 75.4
  MFA (A): 32 + (32 × 2) = 96
- The requirements for the limits of the power supply must also be complied with when operating in cascading mode.
- The maximum permissible voltage fluctuation between phases is 2 %.
- The conductor cross-section must be specified based on the MCA.
- The choice of circuit-breaker depends on the MFA value.

Technical Data – Indoor Units

VRF system	Rated cooling capacity (kW)	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)	Sound pressure level[1] (dB(A))	Power input[2] MCA (A)	Power input[2] MFA (A)	Level difference of condensate pump (mm)	Air flow rate[3] Very high (m³/h)	Air flow rate[3] Medium (m³/h)	Air flow rate[3] Very low (m³/h)
1-way cassette												
AF2-1C 18-1 P	1.8	1,054	153	428	11.5	30/26/22	0.38	15	1,200	380	300	240
AF2-1C 22-1 P	2.2	1,054	153	428	11.5	30/26/22	0.38	15	1,200	380	300	340
AF2-1C 28-1 P	2.8	1,054	153	428	11.8	37/34/30	0.39	15	1,200	460	380	300
AF2-1C 36-1 P	3.6	1,054	153	425	11.8	38/34/30	0.39	15	1,200	460	380	300
AF2-1C 45-1 P	4.5	1,275	189	452	15.8	39/35/31	0.53	15	1,200	693	600	476
AF2-1C 56-1 P	5.6	1,275	189	452	15.8	41/37/33	0.58	15	1,200	792	688	549
AF2-1C 71-1 P	7.1	1,275	189	452	19.6	43/39/35	0.59	15	1,200	933	749	592
Compact 4-way cassette (EURO-Raster)												
AF2-4CC 15-1 P	1.5	575	235	638	13.0	29/27/25	0.46	15	1,200	450	370	295
AF2-4CC 22-1 P	2.2	575	235	638	13.0	29/27/25	0.46	15	1,200	450	370	295
AF2-4CC 28-1 P	2.8	575	235	638	13.0	30/27/25	0.54	15	1,200	510	425	340
AF2-4CC 36-1 P	3.6	575	235	638	14.0	31/28/25.5	0.54	15	1,200	530	440	345
AF2-4CC 45-1 P	4.5	575	235	638	14.0	36.5/31/26.5	0.61	15	1,200	640	530	425
AF2-4CC 56-1 P	5.6	575	235	638	15.0	39/36/32	0.65	15	1,200	810	670	535
AF2-4CC 63-1 P	6.3	575	235	638	15.0	43/38/33.5	0.81	15	1,200	905	755	605
Round 4-way cassette												
AF2-CR 28-1 P	2.8	840	204	840	18.0	30/27.5/25	0.51	15	1,200	790	641	492
AF2-CR 36-1 P	3.6	840	204	840	18.0	30/27.5/25	0.51	15	1,200	790	641	492
AF2-CR 45-1 P	4.5	840	204	840	19.5	33/30/27	0.59	15	1,200	840	680	519
AF2-CR 56-1 P	5.6	840	204	840	22.0	33/30/27	0.59	15	1,200	840	692	543
AF2-CR 71-1 P	7.1	840	246	840	22.0	37/33/29	0.94	15	1,200	1,000	829	658
AF2-CR 80-1 P	8.0	840	246	840	22.0	38/34/29	0.95	15	1,200	1,330	1,057	783
AF2-CR 90-1 P	9.0	840	246	840	22.0	38/34/29	1.05	15	1,200	1,330	1,057	783
AF2-CR 100-1 P	10.0	840	288	840	24.0	39/36/33	1.09	15	1,200	1,445	1,200	955
AF2-CR 112-1 P	11.2	840	288	840	24.0	41/37/33	1.18	15	1,200	1,600	1,290	979
AF2-CR 140-1 P	14.0	840	288	840	26.5	43/39/34	1.41	15	1,200	1,730	1,412	1,094
Round flow 4-way cassette (Air-dry series)												
AF2-4CS 45-1 P	4.5	840	246	840	22.0	33/31/29	0.47	15	1,200	829	744	658
AF2-4CS 56-1 P	5.6	840	246	840	22.0	33/31/29	0.47	15	1,200	829	744	658
AF2-4CS 71-1 P	7.1	840	246	840	24.0	35/34/33	0.84	15	1,200	1,118	1,037	955
AF2-4CS 80-1 P	8.0	840	246	840	24.0	37/35/33	0.94	15	1,200	1,282	1,119	955
AF2-4CS 90-1 P	9.0	840	288	840	24.0	37/35/33	0.94	15	1,200	1,282	1,119	955
AF2-4CS 100-1 P	10.0	840	288	840	26.5	39/36.5/34	1.32	15	1,200	1,412	1,253	1,094
AF2-4CS 112-1 P	11.2	840	288	840	26.5	40/37/34	1.40	15	1,200	1,518	1,306	1,094
AF2-4CS 140-1 P	14.0	840	288	840	26.5	43/38.5/34	1.41	15	1,200	1,730	1,412	1,094
Wall unit												
AF2-W 15-1	1.5	750	295	265	9.0	32/30/27	0.15	15	–	460	400	340
AF2-W 22-1	2.2	750	295	265	9.0	33/30/27	0.15	15	–	500	410	340
AF2-W 28-1	2.8	750	295	265	10.0	35/32/28	0.17	15	–	540	430	340
AF2-W 36-1	3.6	750	295	265	10.0	37/33/28	0.19	15	–	580	460	340
AF2-W 45-1	4.5	950	295	265	11.5	37/32/29	0.29	15	–	720	560	410
AF2-W 56-1	5.6	950	295	265	11.5	41/35/29	0.40	15	–	860	620	410
AF2-W 71-1	7.1	1,200	295	265	15.0	44/38/32	0.96	15	–	1220	940	660
AF2-W 80-1	8.0	1,200	295	265	15.0	45/39/32	0.98	15	–	1380	1020	660

[1] Ventilation level: very high/medium/very low; intermediate stages not listed. Measured distance depending on model type – please refere to technical databooks.
[2] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[3] Intermediate stages not listed.

VRF system	Rated cooling capacity (kW)	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)	Sound pressure level[1] (dB(A))	Power input[2] MCA (A)	Power input[2] MFA (A)	Level difference of condensate pump (mm)	Air flow rate[3] Very high (m^3/h)	Air flow rate[3] Medium (m^3/h)	Air flow rate[3] Very low (m^3/h)
Ceiling and floor unit												
AF2-CF 36-1	3.6	1069	674	234	24.7	32/28/25	0.20	15	–	564	492	424
AF2-CF 45-1	4.5	1069	674	234	24.7	36/33/30	0.28	15	–	712	603	500
AF2-CF 56-1	5.6	1069	674	234	24.7	43/38/33	0.43	15	–	927	794	665
AF2-CF 71-1	7.1	1,284	674	234	29.8	43/37/33	0.45	15	–	1,128	926	729
AF2-CF 80-1	8.0	1,284	674	234	29.8	45/40/34	0.60	15	–	1,300	1,057	824
AF2-CF 90-1	9.0	1,284	674	234	29.8	48/44/37	0.75	15	–	1,480	1,218	979
AF2-CF 112-1	11.2	1,6749	674	234	36.4	44/39/33	0.75	15	–	1,648	1,292	956
AF2-CF 140-1	14.0	1,649	674	234	36.4	51.5/46/40	1.25	15	–	2,206	1,810	1,402
Floor standing indoor unit with cabinet												
AF2-FC 22-1	2.2	1,020	495	200	21.1	32.5/31/29	0.5	15	–	498	464	430
AF2-FC 28-1	2.8	1,020	495	200	21.1	32.5/31/29	0.5	15	–	498	464	430
AF2-FC 36-1	3.6	1,020	495	200	21.9	35/32/29	0.5	15	–	508	458	407
AF2-FC 45-1	4.5	1,240	495	200	26.3	38/35/31.5	0.5	15	–	692	610	528
AF2-FC 56-1	5.6	1,360	591	220	32.1	35/33/31	0.6	15	–	811	732	653
AF2-FC 71-1	7.1	1,360	591	220	33.3	39.5/37/34	0.6	15	–	930	825	721
Floor standing indoor unit without cabinet												
AF2-F 22-1	2.2	915	470	200	16.3	34.5/32/30.5	0.5	15	–	473	449	426
AF2-F 28-1	2.8	915	470	200	16.3	34.5/32/30.5	0.5	15	–	473	449	426
AF2-F 36-1	3.6	915	470	200	16.9	36.5/34/31	0.5	15	–	524	471	408
AF2-F 45-1	4.5	1,133	470	200	20.0	37/34/30	0.5	15	–	636	557	483
AF2-F 56-1	5.6	1,253	566	200	24.3	36/34/30	0.6	15	–	781	717	624
AF2-F 71-1	7.1	1,253	566	200	26.1	40.5/37.5/34.5	0.6	15	–	928	834	739
Low pressure ducted unit												
AF2-DL 15-1 P	1.5	653	199	470	11.5	27/24.5/22	0.88	15	1,200	340	320	290
AF2-DL 22-1 P	2.2	653	199	470	11.5	28/25.5/22	0.88	15	1,200	370	322	295
AF2-DL 28-1 P	2.8	653	199	470	11.5	30/27.5/22	0.88	15	1,200	460	380	300
AF2-DL 36-1 P	3.6	803	199	470	13.0	30/27.5/25	0.94	15	1,200	605	453	320
AF2-DL 45-1 P	4.5	1,003	199	470	16.5	33/30.5/26	1.10	15	1,200	800	629	435
AF2-DL 56-1 P	5.6	1,003	199	470	16.5	36/32.5/27	1.10	15	1,200	900	682	470
AF2-DL 71-1 P	7.1	1,203	199	470	20.0	37/32.5/29	1.20	15	1,200	1,145	860	580
AF2-DL 80-1 P	8.0	1,703	199	470	28.0	36.5/33/30.5	1.70	15	1,200	1,400	1,175	960
AF2-DL 90-1 P	9.0	1,703	199	470	28.0	36.5/33/30.5	1.70	15	1,200	1,400	1,175	960
AF2-DL 112-1 P	11.2	1,703	199	470	28.0	39.5/35/31.5	1.70	15	1,200	1,620	1,343	1,080
Medium pressure ducted unit												
AF2-DM 15-1 P	1.5	710	245	770	18.5	26.5/24/22	0.63	15	1,200	470	375	280
AF2-DM 22-1 P	2.2	710	245	770	18.5	26.5/24/22	0.63	15	1,200	500	400	300
AF2-DM 28-1 P	2.8	710	245	770	18.5	26.5/24/22	0.63	15	1,200	540	430	320
AF2-DM 36-1 P	3.6	710	245	770	18.5	29/26/22	0.80	15	1,200	575	455	335
AF2-DM 45-1 P	4.5	710	245	770	19.5	33/28/24	1.19	15	1,200	665	538	410
AF2-DM 56-1 P	5.6	910	245	770	24.0	33/30/25	1.19	15	1,200	970	773	575
AF2-DM 71-1 P	7.1	910	245	770	25.0	35/30.5/26	1.50	15	1,200	1,150	904	660
AF2-DM 80-1 P	8.0	1,160	245	770	30.0	37/32.5/28	1.50	15	1,200	1,355	1,080	805
AF2-DM 90-1 P	9.0	1,160	245	770	31.0	37/32.5/28	1.63	15	1,200	1,420	1,128	835
AF2-DM 112-1 P	11.2	1,510	245	770	37.0	39/33/28	2.29	15	1,200	1,950	1,550	1,150
AF2-DM 125-1 P	12.5	1,510	245	770	39.0	40/34/29	2.31	15	1,200	2,105	1,703	1,300
AF2-DM 140-1 P	14.0	1,510	245	770	39.0	40/34/29	2.31	15	1,200	2,105	1,703	1,300
AF2-DM 160-1 P	16.0	1,510	245	770	39.0	42/36/31	2.76	15	1,200	2,350	1,871	1,400

[1] Ventilation level: very high/medium/very low; intermediate stages not listed. Measured distance depending on model type – please refere to technical databooks.
[2] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[3] Intermediate stages not listed.

Technical Data – Indoor Units

VRF system	Rated cooling capacity (kW)	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)	Sound pressure level[1] (dB(A))	Power input[2] MCA (A)	Power input[2] MFA (A)	Level difference of condensate pump (mm)	Air flow rate[3] Very high (m³/h)	Air flow rate[3] Medium (m³/h)	Air flow rate[3] Very low (m³/h)
Medium pressure ducted unit (Air-dry series)												
AF2-DMS 45-1 P	4.5	800	245	750	25.0	31/28/25	1.19	15	1,200	823	742	660
AF2-DMS 56-1 P	5.6	800	245	750	25.0	32.5/29/25	1.41	15	1,200	900	780	660
AF2-DMS 71-1 P	7.1	1,050	245	750	31.0	33/31/29	1.52	15	1,200	1,128	982	835
AF2-DMS 80-1 P	8.0	1,050	245	750	31.0	35/32/29	1.56	15	1,200	1,225	1,030	835
AF2-DMS 90-1 P	9.0	1,400	245	750	39.0	36.5/35/33	1.98	15	1,200	1,568	1,434	1,300
AF2-DMS 112-1 P	11.2	1,400	245	750	39.0	39/36.5/33	2.25	15	1,200	1,837	1,569	1,300
AF2-DMS 140-1 P	14.0	1,400	245	750	39.0	40/34/29	2.31	15	1,200	2,105	1,703	1,300
High pressure ducted unit (slim)												
AF2-DH 56-1	5.6	1,050	299	750	35.0	39/35/30	2.33	15	1,200	1,360	1,122	884
AF2-DH 71-1	7.1	1,050	299	750	35.0	39/35/30	2.33	15	1,200	1,360	1,122	884
AF2-DH 80-1	8.0	1,050	299	750	35.0	39/35/30	2.33	15	1,200	1,360	1,122	884
AF2-DH 90-1	9.0	1,050	299	750	35.0	40/36/31	2.46	15	1,200	1,500	1,238	975
AF2-DH 112-1	11.2	1,400	299	750	44.5	41/37/32	3.34	15	1,200	2,140	1,766	1,391
AF2-DH 125-1	12.5	1,400	299	750	46.5	41/37/33	3.38	15	1,200	2,150	1,774	1,398
AF2-DH 140-1	14.0	1,400	299	750	46.5	43/39/34	3.75	15	1,200	2,400	1,980	1,560
AF2-DH 160-1	16.0	1,400	299	750	46.5	44/40/35	4.13	15	1,200	2,600	2,145	1,690
High pressure ducted unit (large)												
AF2-DH 200-1	20.0	1,300	580	900	125.0	51/46/42	8.19	30	1,200	4,700	3,760	2,820
AF2-DH 224-1	22.4	1,300	580	900	125.0	51/46/42	8.19	30	1,200	4,700	3,760	2,820
AF2-DH 252-1	25.2	1,300	580	900	125.0	51/46/42	8.19	30	1,200	4,700	3,760	2,820
AF2-DH 280-1	28.0	1,300	580	900	125.0	51/46/42	8.19	30	1,200	4,700	3,760	2,820
AF2-DH 335-1	33.5	1,300	580	900	128.0	52/48/43	8.31	30	1,200	4,700	3,760	2,820
AF2-DH 400-1	40.0	1,850	580	900	166.0	58/52/48	12.98	30	1,200	7,500	6,000	4,500
AF2-DH 450-1	45.0	1,850	580	900	166.0	58/52/48	12.98	30	1,200	7,500	6,000	4,500
AF2-DH 560-1	56.0	1,850	580	900	170.0	59/54/49	15.49	30	1,200	8,400	6,720	5,040

[1] Ventilation level: very high/medium/very low; intermediate stages not listed. Measured distance depending on model type – please refere to technical databooks.
[2] Select the wire diameter and type of circuit breaker based on the table, where MCA is used to select the wire diameter, and MFA is used to select the current circuit breakers and residual current operation breakers.
[3] Intermediate stages not listed.

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