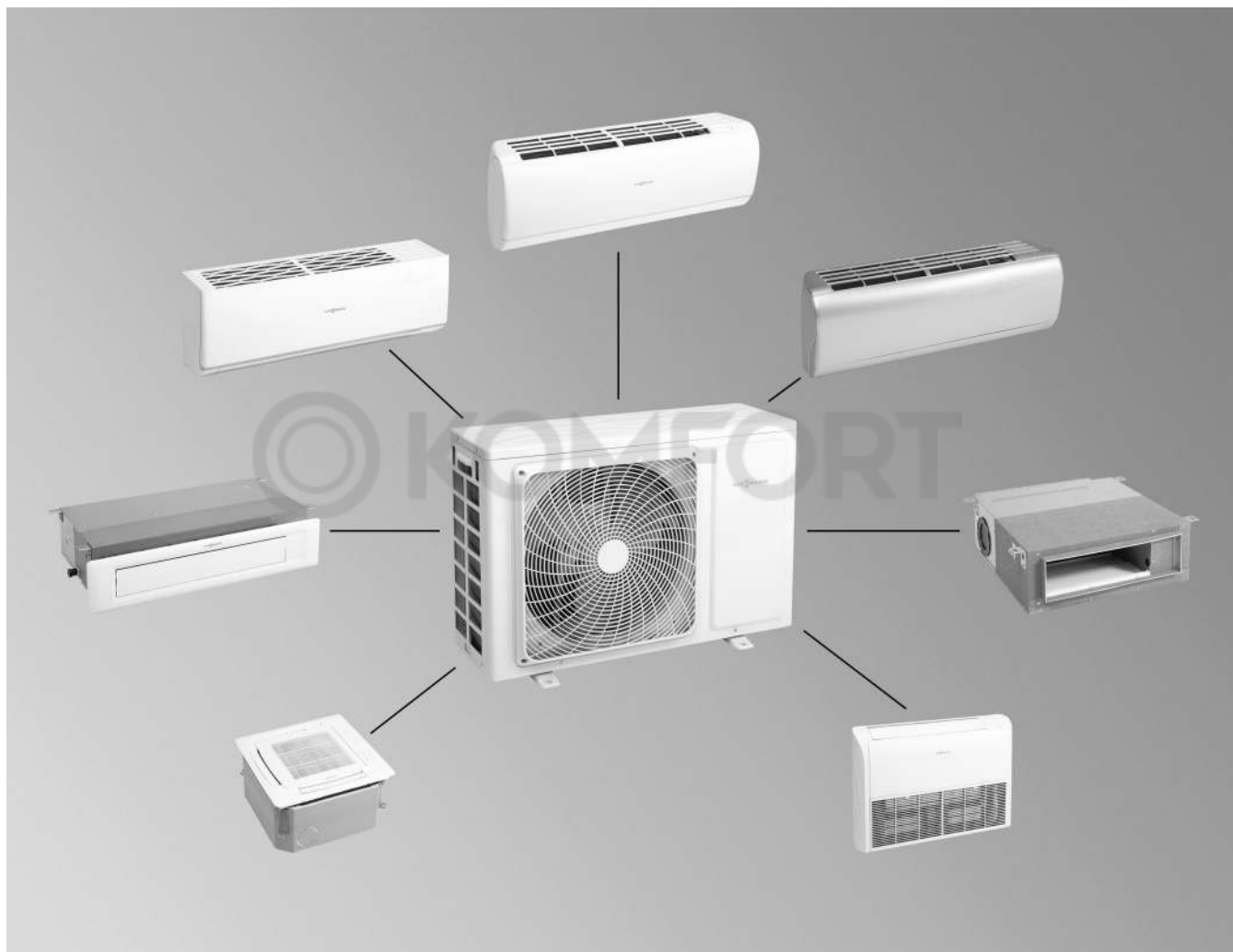# VIESSMANN

VITOCLIMA

Technical guide

VITOCLIMA 300-S   Type IW/
OFAA300MHA

Single split air conditioning units with DC inverter technology
Outdoor unit and indoor unit as wall mounted appliance

VITOCLIMA 200-S   Type IW/
OFAA200MHA

Single split air conditioning units with DC inverter technology
Outdoor unit and indoor unit as wall mounted appliance

VITOCLIMA 200-S

Multi split air conditioning units with DC inverter technology
Outdoor unit and multiple indoor units. Indoor units are selected according to output and the installation situation.

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1.1 Climate control heating, cooling and dehumidification with and via air

Comfort

With indoor air conditioning units, the most varied demands on room climate can be met.
There is a certain "comfort zone" within which most people experience thermal comfort and are at their most productive.
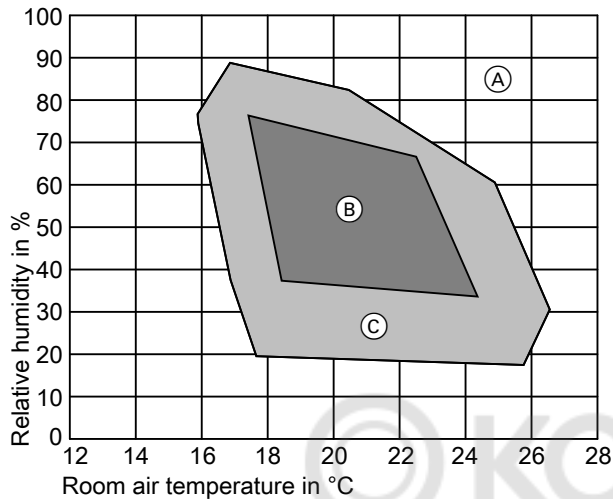
(A) Uncomfortable
(B) Comfortable
(C) Just comfortable

For room climate control, ensure that the room air temperature is lowered by no more than 6 K relative to the outside temperature, depending on room size. Greater temperature differentials may cause acclimatisation problems.

Room climate is affected by the following factors
■ Room air temperature
■ Air humidity
■ Air movement
■ Air purity
■ Ambient temperature
■ Level of activity of room occupants

Advantages of room air conditioning with split air conditioners
■ Short heat-up/reaction times
■ No additional heat distribution systems required, including any parts such as pumps, pipework systems or radiators
■ The appliance can also be used efficiently in heating mode as no sluggish system components/media need to kept at a specific temperature.
■ During absence with lower indoor temperatures, e.g. in holiday homes, there is no water system to freeze.
■ The indoor air is passively filtered. If the appliance is suitably equipped, the indoor air can also be actively filtered and treated.
■ Possible to combine with other electrical building services systems, e.g. with photovoltaic systems, battery storage, ventilation systems, DHW heat pumps
■ Eligibility for subsidies: Depending on the current framework conditions, a split air conditioning unit is also eligible for subsidies as an air source heat pump.

Room air temperature and humidity

The relationship between the room temperature and relative humidity is a measure of comfort. At an indoor air temperature above 24 °C, the ability to concentrate is already noticeably reduced. High humidity increases this effect.
Scientific tests have shown the following: an indoor air temperature of 26 °C with a relative humidity of 40 % is perceived as significantly more pleasant than 24 °C at 70 % humidity. A change in the air temperature has a direct effect on relative humidity. To achieve the so-called feel-good climate, the indoor air temperature generally only needs to be reduced by a fraction if the air is dehumidified accordingly.

With Viessmann air conditioning units, rooms can be not just temperature-controlled but automatically dehumidified too.

Air movement

Too high an air velocity becomes noticeable in the form of unpleasant draughts. We recommend that air is always fed in head on and in reverse flow.

Too low an air velocity means "stagnant air". Viessmann air conditioning units operate with a variable fan speed, so that users can set them for optimum comfort.

Air purity

Air is polluted with various harmful substances, e.g. dust, exhaust gases, microorganisms and pollen. Viessmann air conditioning units are fitted with a multi stage filter system that improves the air quality considerably.
Appliances with IFD filters act as active air purifiers. They produce clean air by means of electrostatic filters in the indoor unit. The process ionises the air molecules. The negatively charged air molecules bind to dirt particles, allergens, viruses, bacteria and fine dust, allowing up to 99.9 % of these substances to be separated out in the filter.

The IFD filter is easy to clean and does not need to be replaced. The IFD filter has a filter performance comparable to that of a HEPA filter, which has to be replaced regularly.
IFD filter (intense field dielectric) = electrostatic, active room air filter, HEPA filter (high efficiency particulate air) = fine particulate filter
Appliances with UV-C function and nano-aqua ionisation improve air quality. The UV-C lamp of the indoor units renders viruses and bacteria harmless.

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1.2 Noise emissions

Sound

Human beings are capable of hearing sounds in the pressure range from $20 \cdot 10^{-6}$ Pa (hearing threshold) to 20 Pa (1 to 1 million). The pain threshold is at around 60 Pa.

Changes in air pressure are perceived provided they take place at a rate of between 20 and 20,000 times per second (20 Hz to 20,000 Hz).

Sound source	Sound level in dB(A)	Sound pressure in µPa	Perception
Silence	0 to 10	20 to 63	Inaudible
Ticking of a watch, quiet bedroom	20	200	Very quiet
Very quiet garden, quiet air conditioning	30	630	Very quiet
House or flat in a quiet neighbourhood	40	$2 \cdot 10^3$	Quiet
Gentle stream	50	$6.3 \cdot 10^3$	Quiet
Normal speaking volume	60	$2 \cdot 10^4$	Loud
Loud speaking volume, office noise	70	$6.3 \cdot 10^4$	Loud
Intensive traffic noise	80	$2 \cdot 10^5$	Very loud
Heavy duty truck	90	$6.3 \cdot 10^5$	Very loud
Car horn at a distance of 5 m	100	$2 \cdot 10^6$	Very loud

Ⓐ Structure-borne noise
Ⓑ Airborne noise
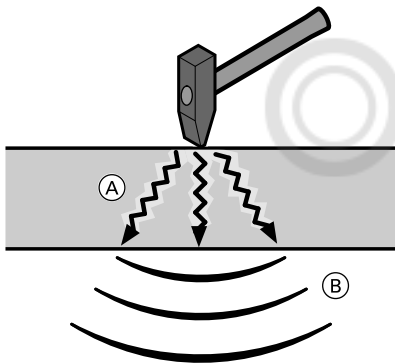
Structure-borne noise, liquid-borne noise
Mechanical vibrations present in equipment, such as machine and building components as well as in liquids, are transmitted through them and radiated out by them at different points as airborne noise.

Airborne noise
Sound sources (equipment in which vibrations are present) create mechanical vibrations in the air that propagate in wave form and are audible to the human ear at different levels.

Sound power level and sound pressure level
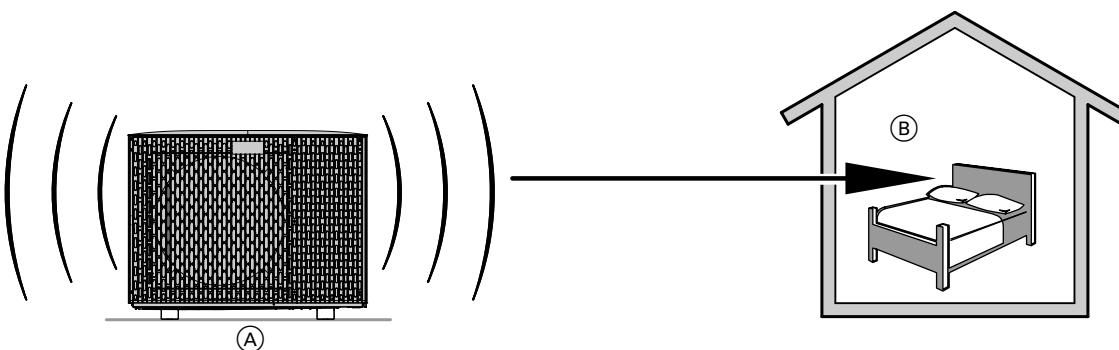
Ⓐ Sound source (outdoor unit)
Emission site
Measured variable: Sound power level L_W
Ⓑ Location of incoming sound emission
Immission site
Measured variable: Sound pressure level L_P

Sound power level L_W

This describes the entire sound emissions in all directions emanating from the heat pump. It does **not** depend on the surrounding conditions (reflections) and is a value that can be used for direct comparisons of sound sources (heat pumps).

Sound pressure level L_P

The sound pressure level is a measure to assist orientation regarding the volume of noise perceived by the ear at a specific location. The sound pressure level is substantially influenced by the distance and ambient conditions and is thus dependent upon the measuring location (often at a distance of 1 m). Standard measuring microphones measure the sound pressure directly.

The sound pressure level is the variable that is used to assess immissions from individual systems.

Sound reflection and sound pressure level (directivity Q)

The sound pressure level increases exponentially with the number of adjacent, vertical, fully reflective surfaces (e.g. walls) compared to installation in a free field (Q = directivity), as sound projection is restricted compared to installation in a free field.

Q = 2   Q = 4   Q = 8
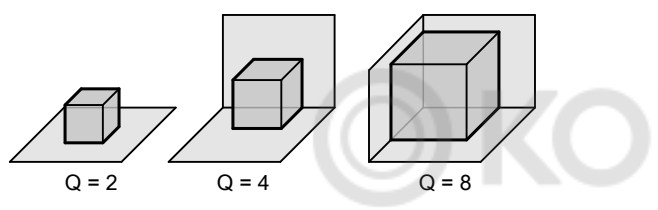
Q   Directivity

Q = 2: Freestanding outdoor unit at a large distance from the building
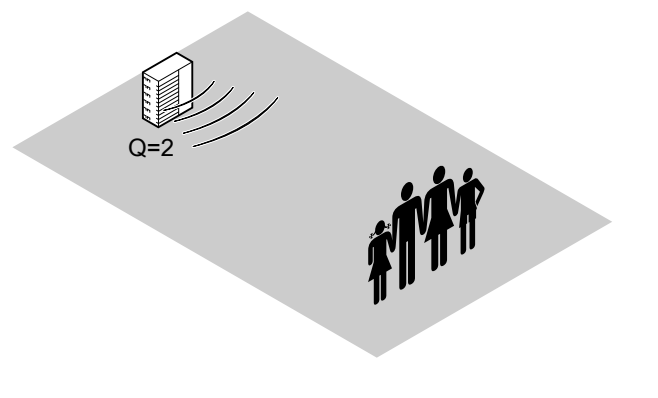
Q = 4: Outdoor unit close to a house wall
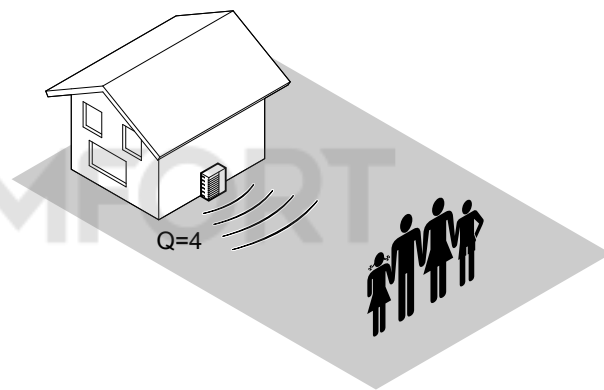
Q = 8: Outdoor unit close to a house wall, next to a projecting wall corner
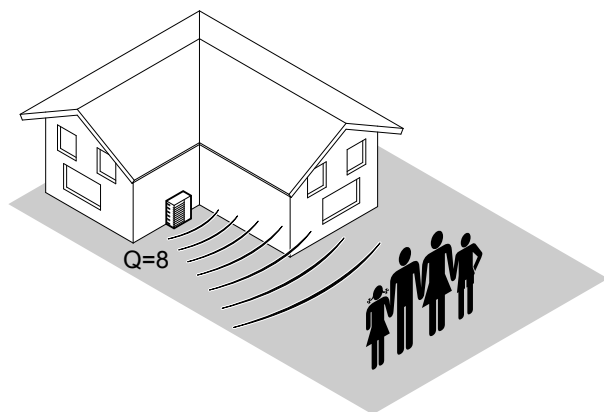
The following table shows the extent to which the sound pressure level L_P changes according to directivity Q and the distance from the appliance in relation to the sound power level L_W measured directly at the appliance or at the air diffuser.
The values listed in the table were calculated according to the following formula:

$$L = L_W + 10 \cdot \log \left(\frac{Q}{4 \cdot \pi \cdot r^2} \right)$$

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L   =   Sound level at the receiver
L_W =   Sound power level at the sound source
Q   =   Directivity
r   =   Distance between receiver and sound source

The legal requirements concerning sound propagation apply under the following idealised conditions:
■ The sound source is a point source of sound.
■ Installation and operating conditions for the heat pump correspond to the conditions when determining the sound power.

■ At Q = 2, sound is emitted in a free field, no surrounding reflective objects/buildings.
■ At Q = 4 and Q = 8, full reflection on adjacent surfaces is assumed.
■ Unrelated noise from other surrounding sources is not taken into account.

Directivity Q, calculated on site	Distance from the sound source in m								
	1	2	4	5	6	8	10	12	15
	Energy-equivalent duration of sound pressure level L_P of the heat pump in relation to the sound power level L_W measured at the appliance/air duct in dB(A)								
2	−8.0	−14.0	−20.0	−22.0	−23.5	−26.0	−28.0	−29.5	−31.5
4	−5.0	−11.0	−17.0	−19.0	−20.5	−23.0	−25.0	−26.5	−28.5
8	−2.0	−8.0	−14.0	−16.0	−17.5	−20.0	−22.0	−23.5	−25.5

Note

■ *In practice, actual values may differ from those shown here due to sound reflection or sound absorption as a result of local conditions. Therefore, the situations described for example by Q = 4 and Q = 8 often give only an approximate picture of the actual conditions at the emission site.*
■ *If the heat pump sound pressure level as calculated approximately from the table is less than 3 dB(A) different from the permissible standard value given by the TA Lärm, a precise sound immissions prognosis must be produced (consult an acoustic engineer).*

Standard values for assessing the sound pressure level to TA Lärm (measured outside the building)

Area/object: Determined according to outline planning restrictions; check with local authorities.	Standard immissions value (sound pressure level) in dB(A): Valid for the sum of all sounds that have an influence	
	During the day	At night
Area with a mix of commercial installations and residential units where neither commercial installations nor residential units dominate.	60	45
Areas with predominantly residential units.	55	40
Areas with only residential units.	50	35
Residential units that are structurally connected to the heat pump system	40	30

Note

■ *Sound emission regulations (TA-Lärm in Germany) must be observed.*
■ *When siting the heat pump, always take into account the distances to neighbouring properties in accordance with local building regulations.*

1.3 Regulation on fluorinated greenhouse gases

The Regulation (EU) No. 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 (F-gas Regulation) is a legal instrument of the European Union regarding the handling of fluorinated greenhouse gases (F-gases).
This regulation applies since January 2015 in all EU member states. It replaces the previously valid Regulation (EC) No. 842/2006.

Note

In deviation from the European regulation, country-specific specifications must be taken into consideration, as they may go beyond the requirements of the F-gas Regulation.

F-gases are present in the refrigerants of air conditioning units.

The F-gas regulation governs the reduction and use of F-gases. The objective is to reduce emissions and the climate-damaging effects of these gases. This is achieved by means of the following measures:
■ Step-by-step reduction of available quantities of F-gases in the EU (phase-down)
■ Step-by-step bans on the use and marketing of certain F-gases
■ Extension of the regulations to include leak tests for refrigerant circuits etc.

The following groups must comply with the regulation
■ Manufacturers and importers of F-gases into the EU
■ Individuals who market products containing F-gases, e.g. heat pumps.
■ Individuals who install systems that use F-gases, shut down such systems or perform maintenance work and servicing on such systems.
■ Individuals who operate systems that use F-gases.

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Leak tests for split/multi split air conditioning units

There are new standards for the leak test for refrigerant circuits of air conditioning units. The following criteria are taken into consideration when determining the maintenance intervals:
- GWP value of the refrigerant (global warming potential)
- Refrigerant charge in the refrigerant circuit
- CO_2 equivalent of the refrigerant (CO_2e)

The point in time when a refrigerant may no longer be marketed in the EU depends on the GWP value and the relevant application (e.g. in heat pumps).

Refrigerant used
- R32
  - GWP value 675
  - Safety group A2L: Low toxicity and mildly flammable

CO_2 equivalent

The CO_2 equivalent CO_2e is calculated from the GWP value and the refrigerant charge as follows:

$$CO_2e_{refrigerant} = m_{Refrigerant} \cdot GWP_{Refrigerant}$$

$CO_2e_{refrigerant}$	CO_2 equivalent of the refrigerant in the refrigerant circuit
$m_{refrigerant}$	Mass of the refrigerant in the refrigerant circuit in kg
$GWP_{refrigerant}$	GWP value of the refrigerant

Example:
- Vitoclima 200-S, type IW/OFAA200MHA026
- Refrigerant R32
- Refrigerant charge 0.52 kg

$$CO_2e_{R32} = 0.52 \text{ kg} \cdot 675 = 357.8 \text{ kg} \approx 0.36 \text{ t}$$

Note
- *LFL value (lower flammability limit), refrigerant R32 = 0.306*
- *To ensure leak-tightness, installed connection lines must not be modified retrospectively.*

Intervals for leak test

According to Regulation (EU) No. 517/2014, the leak test intervals depend on the CO_2 equivalent of the refrigerant as follows:

Hermetically sealed systems	Non-hermetically sealed systems	Max. intervals for leak test	
		Without a device for leakage detection	With a device for leakage detection
$CO_2e_{refrigerant} < 10$ t	$CO_2e_{refrigerant} < 5$ t	No leak test is required	
10 t $\leq CO_2e_{refrigerant} < 50$ t	5 t $\leq CO_2e_{refrigerant} < 50$ t	12 months	24 months
50 t $\leq CO_2e_{refrigerant} < 500$ t	50 t $\leq CO_2e_{refrigerant} < 500$ t	6 months	12 months
500 t $\leq CO_2e_{refrigerant}$	500 t $\leq CO_2e_{refrigerant}$	3 months	6 months

Example:

Test interval for a refrigerant circuit subject to the refrigerant charge m_{R410A} ($GWP_{R32} = 675$)

Non-hermetically sealed systems	Max. intervals for leak test	
	Without a device for leakage detection	With a device for leakage detection
$m_{R32} < 7.4$ kg	No leak test is required	

1.4 Function of split air conditioning units

Split air conditioning units are refrigeration systems with a closed refrigeration cycle within which the refrigerant circulates.

Main components:
- Evaporator
- Condenser
- Compressor
- Electronic expansion valve

Cooling mode
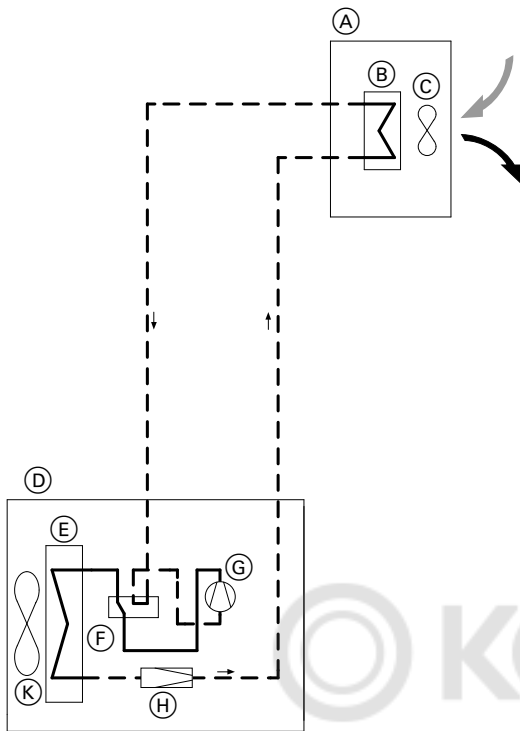
Warm indoor air enters the indoor unit and flows over the evaporator. As it absorbs heat energy from the indoor air, the refrigerant evaporates due to its physical properties. In the process, the indoor air is cooled by approx. 5 K and in recirculation air mode is fed back into the room via the fan in the indoor unit. The vaporous refrigerant is sucked in by the compressor via the suction line and compressed using electrical energy. Under high pressure and at high temperature the gaseous refrigerant reaches the external heat exchanger (condenser). As the outside temperature is lower than the refrigerant's condensation temperature, the refrigerant condenses. The energy released during evaporation and from the compressor is discharged to the outdoor air via the external heat exchanger.

The high pressure of the liquid refrigerant is released in the expansion valve. The cycle begins again.

(A) Indoor unit
(B) Internal heat exchanger in cooling mode (evaporator)
(C) Internal fan
(D) Outdoor unit
(E) External heat exchanger in cooling mode (condenser)
(F) 4-way diverter valve
(G) Variable speed compressor
(H) Electronic expansion valve
(K) External fan

Heating mode
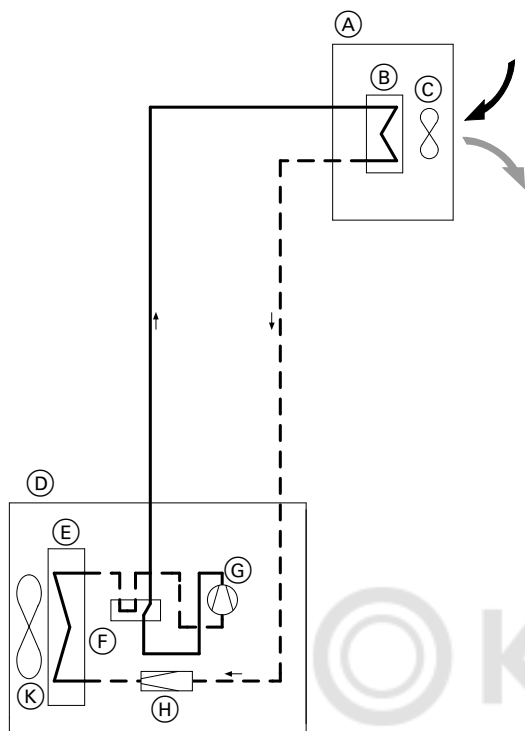
With the Viessmann air conditioning unit, a room can be heated as well as cooled (heat pump function). In this case the cycle is reversed. The evaporator assumes the function of the condenser. The heat energy extracted from the outdoor air is released into the room. Unlike electrical heating systems, this method extracts a large part of the heating energy from the environment. Depending on the design, entire rooms or buildings can be heated efficiently.

Ⓐ Indoor unit
Ⓑ Internal heat exchanger in heating mode (condenser)
Ⓒ Internal fan
Ⓓ Outdoor unit
Ⓔ External heat exchanger in heating mode (evaporator)
Ⓕ 4-way diverter valve
Ⓖ Variable speed compressor
Ⓗ Electronic expansion valve
Ⓚ External fan

VITOCLIMA

2.1 Product type designation

Vitoclima 200-S, type | I | W | A | A | 2 | 0 | 0 | M | H | A | 026

(A) (B) (C) (D) (E) (F) (G) (H) (K) (L) (M)
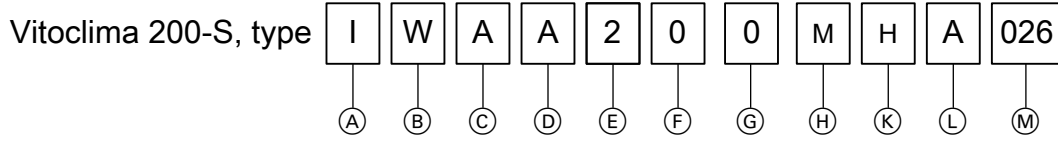
Example

Pos.	Value	Meaning
(A)	Unit	
	O	Outdoor unit (**O**utdoor)
	I	Indoor unit (**I**ndoor)
(B)	Installation type	
	W	**W**all
	F	**F**loor
	FC	**F**loor/**C**eiling fan coil
	C2	**C**eiling cassette **2**-way
	C4	**C**eiling cassette **4**-way
	C8	**C**eiling cassette **8**-way
	CN	Support (Console)
	DL	Duct mounted unit, low supply pressure
	DM	Duct mounted unit, medium supply pressure

Pos.	Value	Meaning
(C)	Source: **A**	**A**ir
(D)	Medium: **A**	**A**ir
(E) to (G)	**100, 200, 300**	Viessmann product segment
(H)	Electrical connection	
	M	1-phase 230 V
	T	3-phase 380 V
(K)	Internal info	
(L)	**A ... Z**	Product generation
(M)	Output size	

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2.2 Product information for split air conditioning units

With Viessmann's range of split air conditioning units, it is possible to air-condition small to medium sized rooms and entire buildings in both the private and commercial sector.
The split air conditioning unit comprises 1 or more indoor units and 1 outdoor unit. The units are connected to each other via refrigerant lines (suction and liquid line). The indoor unit contains the internal heat exchanger, which operates as the evaporator when the system is in "Cooling" mode. Temperature, operating mode (cooling, heating, dehumidifying) as well as comfort functions and fan speed are selected via a remote control unit.

Comfort functions
■ Air treatment
■ Hygiene programs
■ Timing

All other components can be found in the outdoor unit. The outdoor unit is precharged with refrigerant. For precharging, see "Specification" table.
Viessmann offers single and multi split air conditioning units.

Single split air conditioning units
For air conditioning in a single room, consisting of **one** outdoor unit and **one** indoor unit
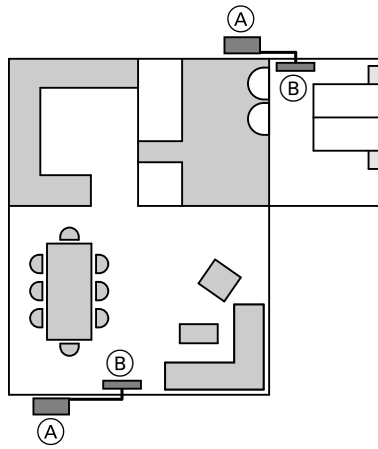
Ⓐ Outdoor unit
Ⓑ Indoor unit

Viessmann offers 2 appliance series for air conditioning an individual room or a group of rooms.
■ Vitoclima 300-S
■ Vitoclima 200-S

Overview of functions/equipment features

Equipment feature	Vitoclima 300-S	Vitoclima 200-S	Vitoclima 100-S
Energy efficiency class for cooling/heating (average), up to	A+++/A+++	A++/A+	A++/A+
Application limit for heating	−20 °C	−15 °C	−15 °C
WiFi connectivity	X	X	Accessories required
ECO sensor	X	—	—
Self Clean - self cleaning function	X	X	X
Self Hygiene - sterilisation program 56 °C	X	X	—
IFD filter	X	—	—
UV-C disinfection	—	X	—
Nano-aqua ionisation	—	X	—
Ionisation	X	—	—
3D air routing	X	X	—
Coanda air flow	—	X	—
Inverter plus technology	X	X	X
Very quiet operation	X	X	X

Multi split air conditioning units
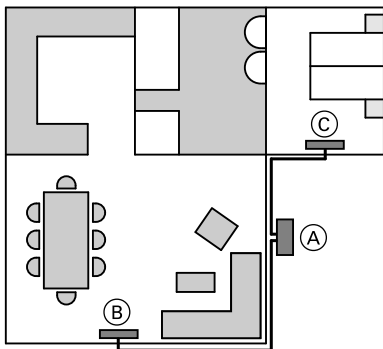
Ⓐ Outdoor unit
Ⓑ Indoor unit 1
Ⓒ Indoor unit 2

For air conditioning larger rooms or multiple rooms, Viessmann offers a range of multi split air conditioning units. Multi split air conditioning units consist of 1 outdoor unit and between 2 and 5 indoor units. There is a choice of 6 versions of indoor unit, depending on output and installation situation.
■ Vitoclima 200-S outdoor units
■ Vitoclima 300-S wall mounted unit in white and silver
■ Vitoclima 200-S wall mounted unit
■ Vitoclima 200-S duct mounted unit with low air supply pressure
■ Vitoclima 200-S duct mounted unit with medium air supply pressure
■ Vitoclima 200-S cassette unit
■ Vitoclima 200-S floor/ceiling unit

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Vitoclima

Overview of functions/equipment features

Functions	Vitoclima 300-S Wall mounting	Vitoclima 200-S			
		Wall mounting	Duct mounting	Floor mounting	Ceiling mounting
Energy efficiency class for cooling/heating (average), up to	A+++/A++	A++/A+			
Application limit for heating	−20 °C	−15 °C			
WiFi connectivity	X	X	Accessories required	Accessories required	Accessories required
ECO sensor	X	—	—	—	—
Self Clean - self cleaning function	X	X	X	X	X
Self Hygiene - sterilisation program 56 °C	X	X	—	—	—
IFD filter	X	—	—	—	—
UV-C disinfection	—	X	—	—	—
3D air routing	X	X	X	X	X
Coanda air flow	—	X	—	—	—
Inverter plus technology	X	X	X	X	X
Very quiet operation	X	—	—	—	—

ECO sensor

The ECO sensor records light intensity as well as the presence and movement of people in a room and their body surface temperature. This enables efficiency programs (e.g. automatic deactivation when it gets dark/during periods of absence) and pleasant, draught-free heating and cooling programs to be activated. For example, a direct flow of air onto surfaces or people in heating mode and an indirect flow of air in cooling mode to reduce draughts.

The ECO sensor has 2 sensors installed to record movement activity and the presence of people in the room. The ECO sensor records movement at an angle of 120° and up to approx. 8 m away. The "follow" and "avoid" modes enable personal heating and cooling preferences to be selected.

■ Avoid: The air conditioning unit avoids directing the air flow straight at the user, e.g. in cooling mode, to prevent draughts.
■ Follow: The air conditioning unit follows the user when directing the air flow, e.g. in heating mode.

The presence sensor also records people's temperature. The brightness sensor measures light levels in the room. To save energy, the appliance reduces its output to 0 within 20 minutes if there is no activity (sleep mode). Output is reduced if there is no longer any light in the room (no person present).

3D air routing

3 motors ensure a more precise and wider air flow based on the setting of the indoor unit.
Air distribution can be directed up, down, left or right. This is carried out by the 3 motors for the air diffuser flaps. There is a motor for up/down, a motor for left/right of one outlet segment and another for the other outlet segment.

Coanda air flow

To maintain a defined air flow, the Coanda air flow allows air to flow along a surface. The air flow mixes with indoor air and creates a natural thermal air circulation effect. In cooling mode, the air is directed upwards. In heating mode, the air is directed downwards.

Hygiene functions

Self Clean - self cleaning function

The indoor unit is equipped with a self cleaning function.
The self-cleaning function cleans the surface of the heat exchanger using a defined freezing and defrost process. Dust and dirt particles are washed from the surface and removed with the condensate.

Benefits
■ Consistently high efficiency: Lower power consumption and lower running costs thanks to self cleaning function
■ Clean and pure surfaces equal cleaner air

Self Hygiene - sterilisation program

Indoor unit sterilisation program for disinfecting the heat exchanger surfaces and silver nanoparticles on the surfaces in contact with air. The sterilisation program destroys any bacteria and viruses on the surface of the heat exchanger. It does this by heating up the indoor unit to 56 °C for 30 min.

IFD filter

The IFD filter actively filters the indoor air using an electrostatic filter in the indoor unit. IFD filters are permanent, washable air cleaning filters and therefore do not incur any regular filter costs. The filter purifies the indoor air by removing 99.9 % of allergens, bacteria, viruses and fine dust. Filter performance is comparable with that of HEPA filters which have to be replaced on a regular basis.

Inspection and cleaning intervals
■ 6 months: Visual inspection, cleaning of filter if necessary
■ 12 months: Cleaning of filter

Note
If the indoor air is more heavily polluted, shorten the inspection and cleaning intervals.

UV-C disinfection

The UV-C lamp at the air intake enhances air quality. Any viruses and bacteria present are inactivated by UV radiation. Safety shutdown: When the front cover (panel) of the indoor unit is opened, the UV emitter is deactivated.

2.3 Control technology

Inverter technology
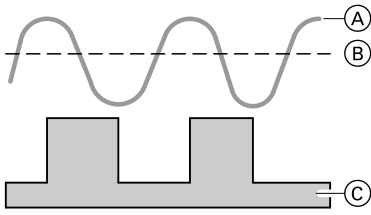
Without inverter technology

(A) Actual indoor air temperature
(B) Set indoor air temperature
(C) Energy consumption

Inverter air conditioning units operate in modulating mode. They adjust the compressor capacity to the actual demand. This enables an optimum control of the indoor air temperature and relative humidity. When there is a large differential between the set and actual temperatures, the air conditioning unit operates at high output. When the difference is minimal, it operates at low output. Preset temperatures are reached more quickly and are held at a relatively constant level, as the rated cooling capacity can be exceeded by up to 30 %. As the compressor operates in modulating mode the fan speed is reduced, which in turn reduces sound emissions inside the room. The inverter technology generates an energy saving of up to 35 % compared to units without inverter technology.
The smaller the grey area (C) in the drawings, the more efficient the operation of the air conditioning unit.
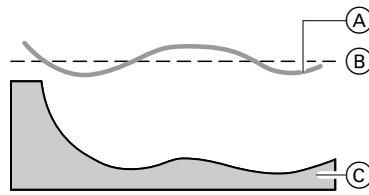
With inverter technology

(A) Actual indoor air temperature
(B) Set indoor air temperature
(C) Energy consumption

Viessmann only offers air conditioning units with inverter plus technology.

Inverter plus technology
The inverter plus technology combines 3 methods of inverter control in order to reduce fluctuations in output and temperature in the system to a minimum (±0.1 °C).
■ Optimised appliance output control, minimal fluctuations in the temperature of the air coming from the unit
■ Increased function robustness in the event of mains voltage fluctuations
■ Rapid cooling and heating is possible thanks to reliable high-power compressor activation

Operation

Remote control
All air conditioning units are equipped with a remote control unit. The remote control units enable individual settings to be made and appliance functions to be called up. The infrared remote control units have a range of approx. 8 m. If multiple indoor units are connected to one outdoor unit (multi split air conditioning system), all the indoor units operate in the same mode (e.g. heating/cooling).

The Vitoclima 300-S, 200-S and 100-S single split air conditioning units are equipped with infrared remote control units.

Remote control units for multi split air conditioning systems

Type of indoor unit	Vitoclima 200-S
Wall, cassette, support	Infrared remote control unit
Channel	Hardwired remote control unit

Operation via app
The indoor units can be connected to the internet via the WiFi module and operated via the "Intelligent Air" app. For WiFi connectivity, the indoor units of the multi split air conditioning units and the Vitoclima 100-S (depending on installation version) require an accessory.

Vitoclima 300-S, single split air conditioning unit

3.1 Product description

Single split air conditioning unit with DC inverter technology
- System comprising 1 outdoor unit and 1 indoor unit as wall mounted appliance
- Indoor units available in white and silver

Benefits
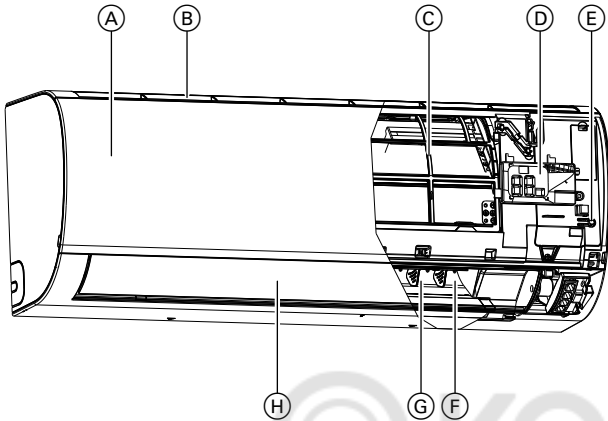
Indoor unit

(A) Front cover
(B) Air intake
(C) IFD filter
(D) LED indicator
(E) "Emergency mode" button
(F) Horizontal air routing
(G) Vertical air routing
(H) Air discharge cover

Single split air conditioning unit with DC inverter technology
- Convenient room climate solution: Heating, cooling and dehumidification via reversible operating mode and air treatment
- Indoor unit with high efficiency heat exchanger plus passive and active air filter function
- Compact outdoor unit and indoor units with coated heat exchanger for a lastingly efficient, antibacterial operating mode and self-cleaning function
- Low running costs due to very high SCOP/SEER and efficiency class A+++/A+++ heating and cooling
- Output control and DC inverter for high efficiency even in partial load operation
- Application range: heating down to -20 °C/cooling up to +43 °C
- Microprocessor control for monitoring and maintaining room air temperature and humidity
- Easy to use infrared remote control unit with numerous comfort functions
- Particularly quiet operation due to variable speed fans and sound insulation measures
- Compact indoor and outdoor units for space saving installation
- Environmentally responsible refrigerant R32 with a low GWP (Global Warming Potential) value of 675
- Comfort functions
  – Self Clean: Self cleaning function
  – Self Hygiene: Sterilisation program for indoor unit
  – Active, cleanable IFD filter
  – Presence and eco sensor for further convenience and energy saving functions
- Web-enabled through integral WiFi interface for system operation via app

Note
For a description of the hygiene functions, see page 13.
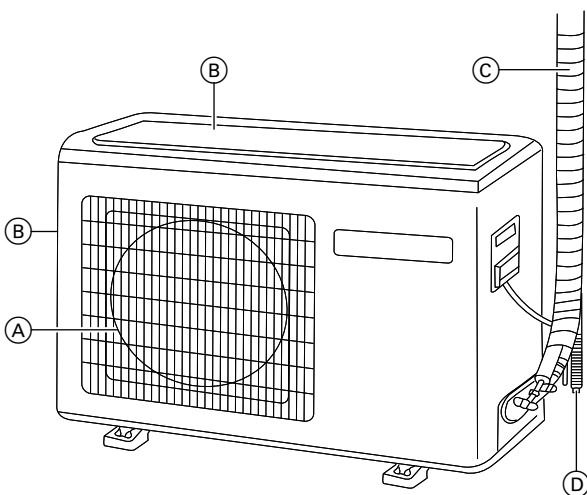
(A) Air diffuser
(B) Air inlet
(C) Connection pipe and electrical cables
(D) Condensate drain hose

Delivered condition

Standard delivery/equipment level
Complete air conditioning unit, type IW/OFAA300MHA

- Outdoor unit
  - With factory-filled refrigerant R32, flanged connections, inverter-controlled, noise attenuated rotating piston compressor, 4-way valve and electronic expansion valve
- Indoor unit as wall mounted appliance
  - Integral high performance evaporator
  - Integral electronic control unit

- Integral motorised air discharge
- With cleanable electrostatic high performance IFD air filter
- Evaporator and condenser with antibacterial coating
- Remote control
- Product documentation

3.2 Specification

Vitoclima 300-S comprising				
Indoor unit IDU	**Type**	IWAA300MHA026	IWAA300MHA035	IWAA300MHA052
Outdoor unit ODU	**Type**	OFAA300MHA026	OFAA300MHA035	OFAA300MHA052
Cooling mode				
Rated cooling capacity	kW	2.6	3.5	5.2
Output range	kW	1.0 to 4.0	1.0 to 4.0	1.4 to 6.0
Power consumption	kW	0.3 to 1.25	0.3 to 1.35	0.3 to 2.1
Annual energy consumption, cooling	kWh/a	104	140	243
Application range, cooling	°C	–10 to 43	–10 to 43	–10 to 43
Energy efficiency, cooling (SEER/EER)		8.75/4.5	8.75/4.4	7.50/3.68
Efficiency class		A+++	A+++	A++
Heating mode				
Rated heating output	kW	3.2	4.2	6.0
Output range	kW	1.1 to 5.4	1.3 to 5.8	1.4 to 6.9
Power consumption	kW	0.3 to 1.85	0.3 to 1.85	0.3 to 2.5
Annual energy consumption, average climate	kWh/a	714	727	1400
Application range, heating (outside temperature)	°C	–20 to 24	–20 to 24	–20 to 24
Energy efficiency, heating				
SCOP/COP (average climate)		5.1/4.8	5.1/4.7	4.6/4.0
SCOP (warm climate)		6.2	6.2	5.6
Efficiency class (average climate)		A+++/A+++	A+++/A+++	A++/A+++
Rated heating output (at -10 °C)	kW	2.6	2.65	4.6
Indoor unit				
Dimensions (width x length x height)	mm	923 x 215 x 320	923 x 215 x 320	1050 x 235 x 350
Weight	kg	12	12	14.9
Air flow rate, maximum	m³/h	550	600	900
Sound power level, maximum	dB(A)	56	57	57
Sound pressure level, indoor unit (4 stages)	dB(A)	15/29/32/36	16/30/33/37	28/33/37/41
Outdoor unit				
Dimensions (width x length x height)	mm	800 x 275 x 553	800 x 275 x 553	820 x 338 x 614
Weight	kg	30	30	46
Air flow rate, maximum	m³/h	2000	2000	2500
Sound power level, maximum	dB(A)	61	62	63
Refrigerant		R32	R32	R32
Charge weight	g	740	740	950
Additional refrigerant charge per m of line	g/m	20	20	20
Operating pressure, refrigerant (low pressure)	MPa	0.15/4.3	0.15/4.3	0.15/4.3
Operating pressure, refrigerant (high pressure)	MPa	4.3	4.3	4.3
Refrigerant connection line, liquid gas	mm	6	6	6
Refrigerant connection line, suction gas	mm	10	10	10
Maximum line length/height differential IDU/ODU	m	15/10	15/10	25/15
Maximum line length without additional refrigerant charge	m	7	7	7
Electrical values				
Rated voltage		1/N/PE 220-240 V/50 Hz	1/N/PE 220-240 V/50 Hz	1/N/PE 220-240 V/50 Hz
Max. power consumption	A	8	8	11.1
Maximum power consumption, system	kW	1.85	1.85	2.5
Fuse protection		B 16	B 16	B 16
Maximum power consumption, system	kW	1.85	1.85	2.5

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Dimensions

Indoor unit, wall, type IWAA300MHA022 to 052
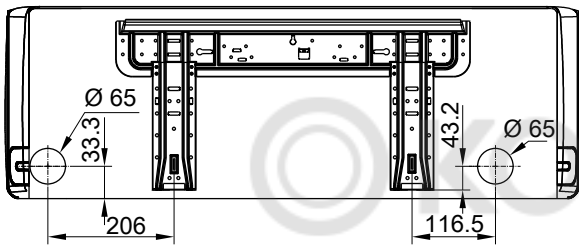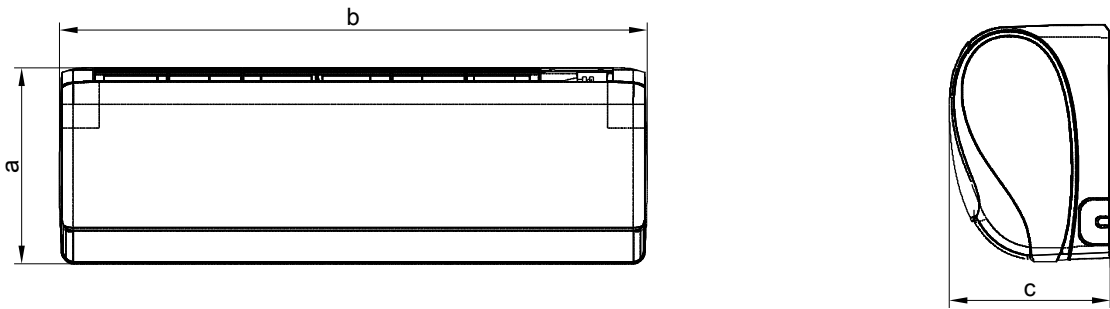
Indoor unit WAA300MHA

Dimensions in mm

Type	a	b	c
IWAA300MHA026	320	923	215
IWAA300MHA035	320	923	215
IWAA300MHA052	350	1050	235

Vitoclima 300-S, single split air conditioning unit (cont.)

Outdoor unit, type OFAA300MHA026 to 052
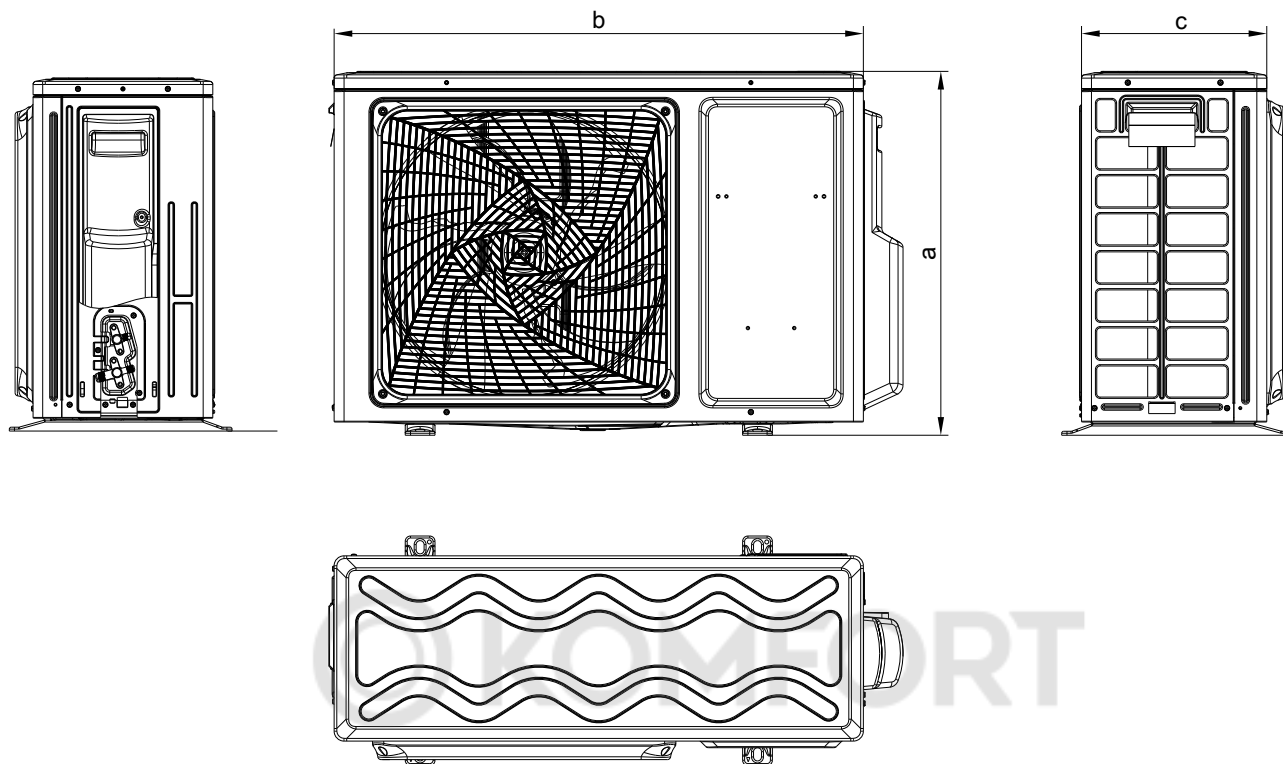
Outdoor unit OFAA300MHA

Dimensions in mm

Type	a	b	c
OFAA300MHA026	553	800	275
OFAA300MHA035	553	800	275
OFAA300MHA052	614	820	338

3.3 Performance graphs

Cooling capacity, outdoor unit OFAA300MHA.026
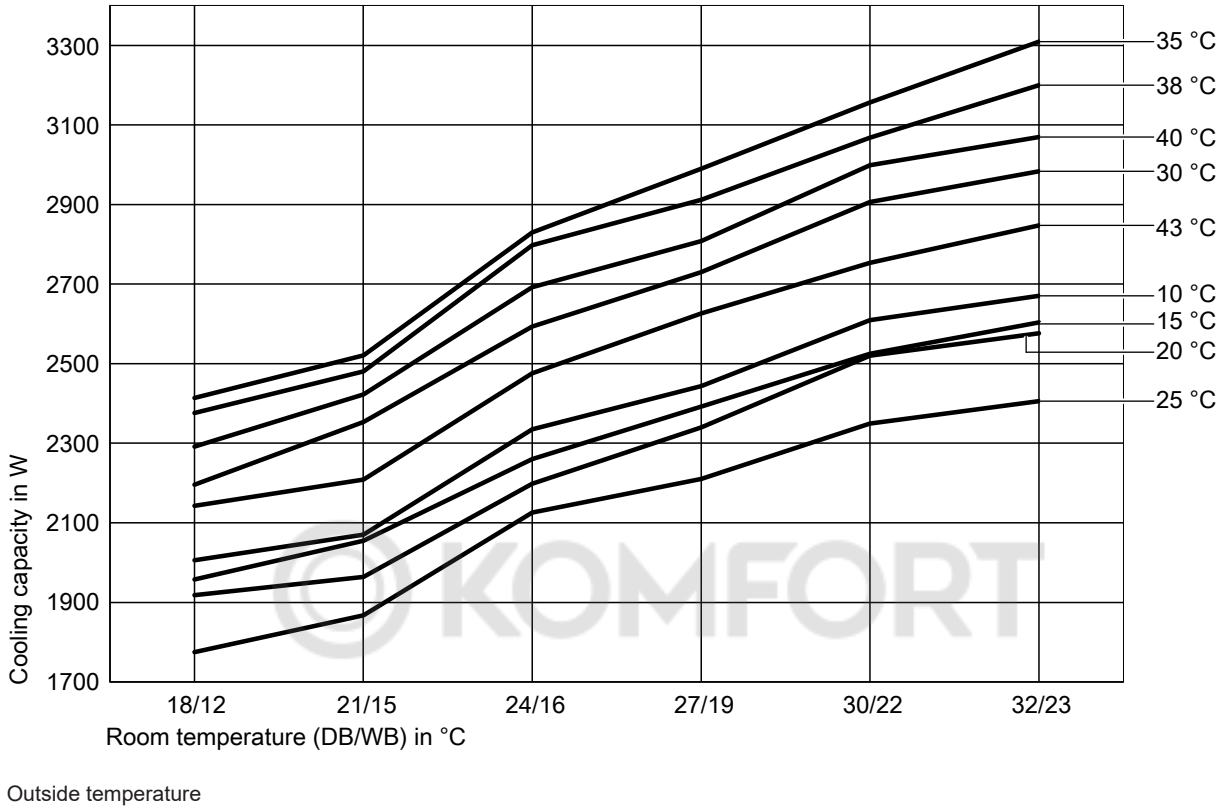
Room temperature (DB/WB) in °C

Outside temperature

Vitoclima 300-S, single split air conditioning unit (cont.)

Power consumption, cooling, outdoor unit OFAA300MHA.026
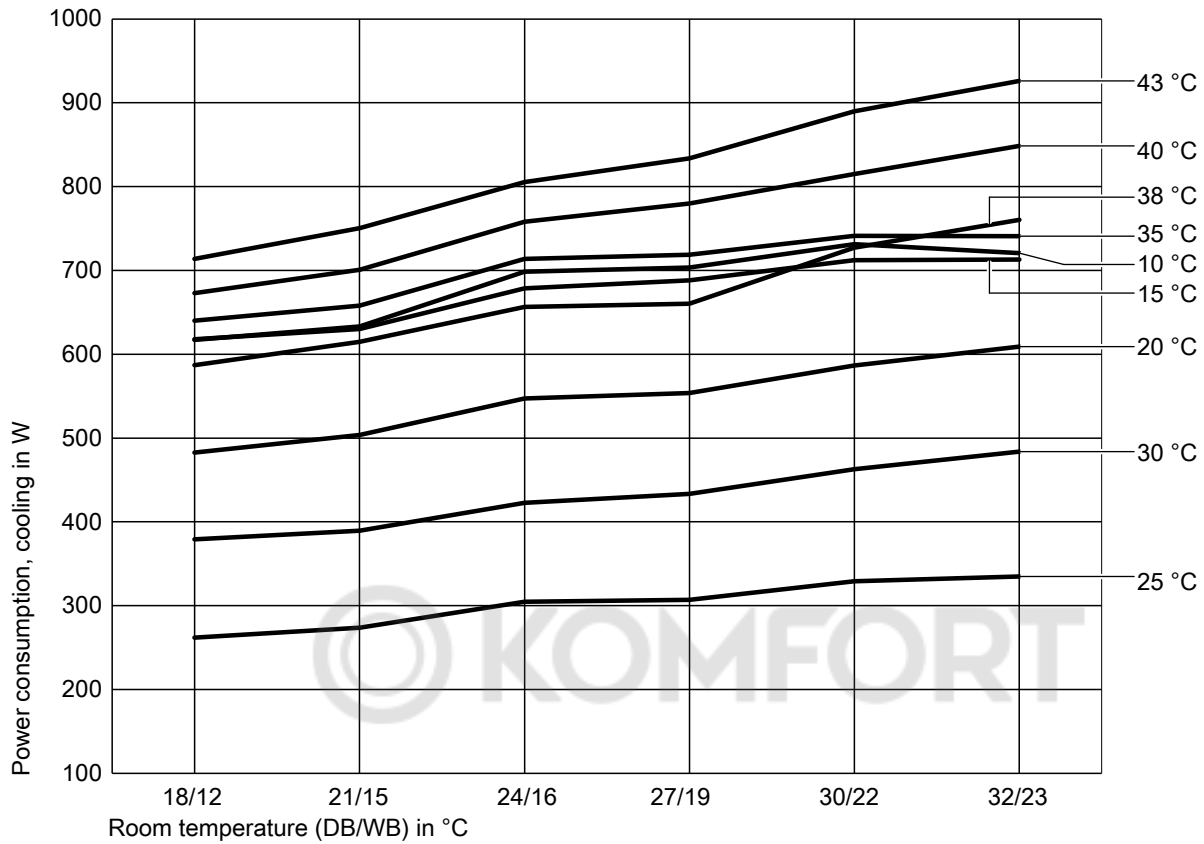
Outside temperature
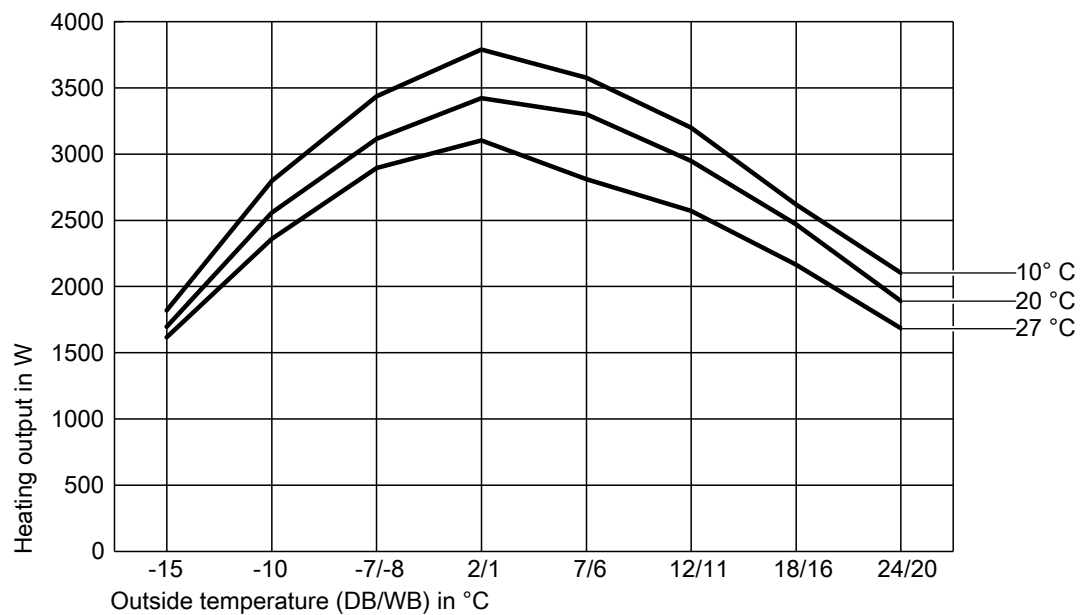
Heating output, outdoor unit OFAA300MHA.026

Supply air temperature

Vitoclima 300-S, single split air conditioning unit (cont.)

Power consumption, heating, outdoor unit OFAA300MHA.026

Supply air temperature

Cooling capacity, outdoor unit OFAA300MHA.035

Outside temperature

Power consumption, cooling, outdoor unit OFAA300MHA.035

Power consumption, cooling in W (y-axis)
Room temperature (DB/WB) in °C (x-axis): 18/12, 21/15, 24/16, 27/19, 30/22, 32/23

Curves labelled: 46 °C, 40 °C, 35 °C, -10 °C, 0 °C, 10 °C, 30 °C, 25 °C, 20 °C

Outside temperature

Heating output, outdoor unit OFAA300MHA.035

Heating output in W (y-axis)
Outside temperature (DB/WB) in °C (x-axis): -20, -10, -7/-8, 2/1, 7/6, 12/11, 18/16, 24/20

Curves labelled: 15 °C, 20 °C, 25 °C

Supply air temperature

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Vitoclima 300-S, single split air conditioning unit (cont.)

Power consumption, heating, outdoor unit OFAA300MHA.035

Supply air temperature

Cooling capacity, outdoor unit OFAA300MHA.052

Outside temperature

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Power consumption, cooling, outdoor unit OFAA300MHA.052

Outside temperature

Heating output, outdoor unit OFAA300MHA.052

Supply air temperature

Vitoclima 300-S, single split air conditioning unit (cont.)

Power consumption, heating, outdoor unit OFAA300MHA.052


Supply air temperature

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Vitoclima 200-S, single split air conditioning unit

4.1 Product description

Single split air conditioning unit with DC inverter technology
■ System comprising 1 outdoor unit and 1 indoor unit as wall mounted appliance
■ Remote control

Benefits

Indoor unit

Ⓐ Front cover
Ⓑ Air intake
Ⓒ Filter (accessories)
Ⓓ LED indicator
Ⓔ "Emergency mode" button
Ⓕ Horizontal air routing
Ⓖ Vertical air routing
Ⓗ Air discharge cover

Ⓐ Air diffuser
Ⓑ Air inlet
Ⓒ Connection pipe and electrical cables
Ⓓ Condensate drain hose

Single split air conditioning units with DC inverter technology
■ Convenient room climate solution: Heating, cooling and dehumidification via reversible operating mode and air treatment
■ Indoor unit with high efficiency heat exchanger and passive air filter function
■ Compact outdoor unit and indoor units with coated heat exchanger for consistently efficient operation
■ Low running costs thanks to very high SCOP/SEER and efficiency class up to A+ for heating and A++ for cooling
■ Output control and DC inverter for high efficiency even in partial load operation
■ Application range: Heating down to −15 °C/cooling up to +43 °C
■ Microprocessor control for monitoring and maintaining room air temperature and humidity
■ Easy to use infrared remote control unit with numerous comfort functions
■ Quiet operation due to variable speed fans and sound insulation measures
■ Compact indoor and outdoor units for space saving installation
■ Environmentally responsible refrigerant R32 with a low GWP value (Global Warming Potential)
■ Comfort functions
   – Self Clean: Self cleaning function
   – Self Hygiene: indoor unit sterilisation program for disinfecting the heat exchanger surfaces and silver nanoparticles on the surfaces in contact with air
   – UV-C sterilisation and ionisation
   – 3D air routing for optimum air flow, adapted for heating and cooling operation
■ Web-enabled through integral WiFi interface for system operation

Note
For a description of the hygiene functions, see page 13.

Delivered condition

Standard delivery/equipment level
Complete air conditioning unit, type IW/OFAA200MHA026 ... 068

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- Outdoor unit
  - Factory-filled with refrigerant R32, flange connections
  - Inverter-controlled, silenced rotating piston compressor
  - 4-way valve and electronic expansion valve
- Indoor unit as wall mounted appliance
  - Integral high performance evaporator
  - Integral electronic control unit
  - Integral motorised air discharge
  - With cleanable, electrostatic, high performance IFD air filter
  - Evaporator and condenser with antibacterial coating
- Remote control
- Product documentation

4.2 Specification

Vitoclima 200-S

Vitoclima 200-S, comprising					
Indoor unit IDU	Type	IWAA200MHA026	IWAA200MHA032	IWAA200MHA050	IWAA200MHA068
Outdoor unit ODU	Type	OFAA200MHA026	OFAA200MHA032	OFAA200MHA050	OFAA200MHA068
Cooling mode					
Rated cooling capacity	kW	2.6	3.5	5.0	6.8
Output range	kW	0.8 to 3.0	0.8 to 3.6	1.3 to 5.8	2.2 to 8.5
Power consumption	kW	0.3 to 1.2	0.3 to 1.6	0.4 to 2.0	0.7 to 2.9
Annual energy consumption	kWh/a	149	184	287	350
Application range, cooling	°C	−10 to 43	−10 to 43	−10 to 43	−10 to 43
Energy efficiency, cooling, (SEER/EER)		6.1/3.23	6.1/3.23	6.1/3.23	6.8/3.23
Efficiency class		A++	A++	A++	A++
Heating mode					
Rated heating output	kW	2.8	3.4	5.2	6.8
Output range	kW	0.8 to 3.2	0.8 to 4.2	1.4 to 6.0	2.4 to 9.5
Power consumption	kW	0.3 to 1.4	0.3 to 1.6	0.5 to 2.5	0.6 to 2.9
Annual energy consumption, average	kWh/a	840	980	1610	1960
Application range, heating (outside temperature)	°C	−20 to 24	−20 to 24	−20 to 24	−20 to 24
Energy efficiency, heating					
SCOP/COP (average climate)		4.0/3.71	4.0/3.71	4.0/3.71	4.0/3.71
SCOP (warm climate)		5.1	5.1	5.1	5.1
Efficiency class (average climate)		A+	A+	A+	A+
Indoor unit					
Dimensions (width x length x height)	mm	805 x 200 x 290	805 x 200 x 290	975 x 220 x 320	975 x 220 x 320
Weight	kg	8.3	8.3	11.6	11.6
Air flow rate, max.	m³/h	550	600	900	1100
Sound pressure level, indoor unit (4 stages)	dB(A)	18/28/32/37	19/29/33/37	28/35/40/44	21/29/37/45
Outdoor unit					
Dimensions (width x length x height)	mm	700 x 245 x 544	700 x 245 x 544	800 x 275 x 553	890 x 340 x 705
Weight	kg	22.8	23.6	32.7	44
Air flow rate, max.	m³/h	2100	2100	2500	2600
Sound power level, max.	dB(A)	62	63	65	68
Refrigerant		R32	R32	R32	R32
Charge weight	g	520	530	900	1100
Additional refrigerant charge per m of line	g/m	20	20	20	20
Operating pressure, refrigerant (low pressure)	MPa	0.15	0.15	0.15	0.15
Operating pressure, refrigerant (high pressure)	MPa	4.3	4.3	4.3	4.3
Refrigerant connection line, liquid gas	mm	6	6	6	6
Refrigerant connection line, suction gas	mm	10	10	12	12
Max. line length/height differential IDU/ODU refrigerant lines	m	20/10	20/10	25/15	25/15
Max. line length without additional refrigerant	m	5	5	5	5
Electrical values					
Rated voltage		1/N/PE 220-240 V/50 Hz	1/N/PE 220-240 V/50 Hz	1/N/PE 220-240 V/50 Hz	1/N/PE 220-240 V/50 Hz
Max. power consumption	A	6.2	7.1	11.3	13
Fuse protection		B 16	B 16	B 16	B 16
Max. power consumption, system	kW	1.4	1.6	2.5	2.9

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Vitoclima 200-S, single split air conditioning unit (cont.)

Dimensions, indoor unit
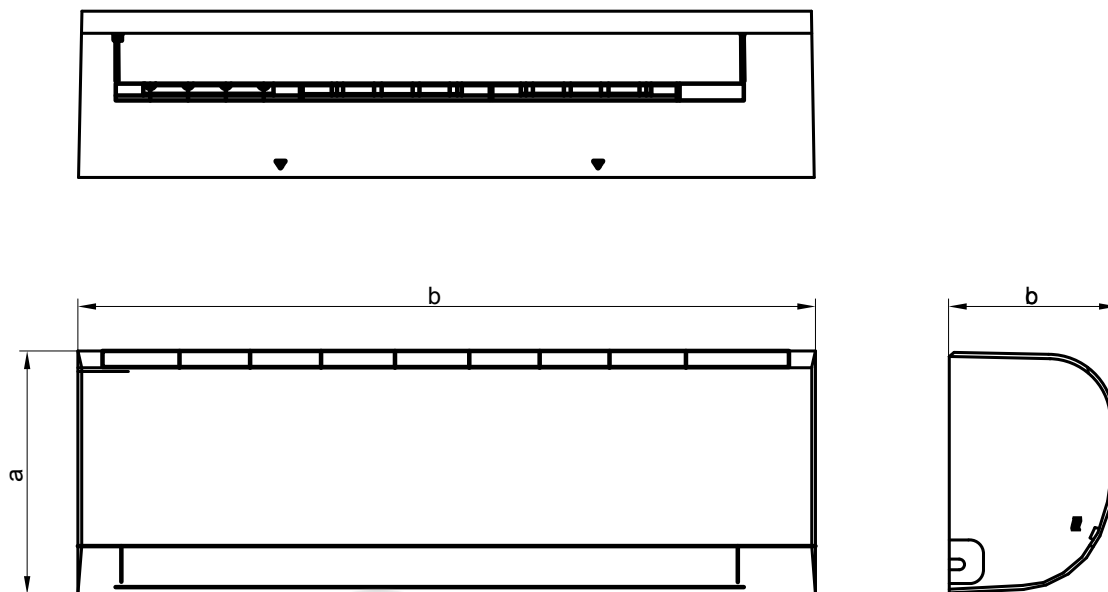
Indoor unit IWAA200MHA

Dimensions in mm

Type	a	b	c
IWAA300MHA026	290	805	200
IWAA300MHA032	290	805	200
IWAA300MHA050	320	975	220
IWAA300MHA068	320	975	220

Dimensions, outdoor unit
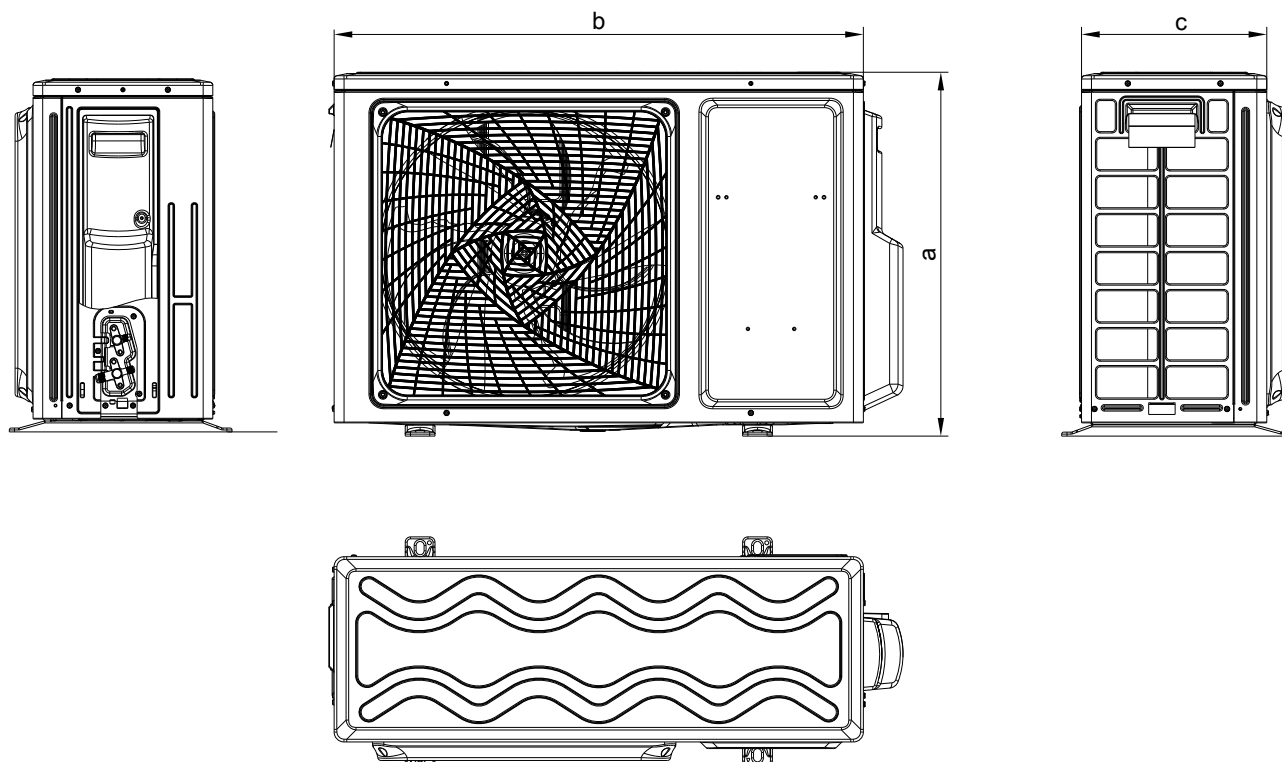
Outdoor unit OFAA200MHA

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Dimensions in mm

Type	a	b	c
OFAA200MHA026	544	700	245
OFAA200MHA032	544	700	245
OFAA200MHA050	553	800	275
OFAA200MHA068	705	890	340

4.3 Performance graphs

Performance graphs, type OFAA200MHA026

Cooling capacity and indoor/outdoor temperature curves OFAA200MHA026

Outside temperature

Power consumption, cooling, outdoor unit OFAA200MHA026

Power consumption in W (vertical axis, 100–1500)
Room temperature (DB/WB) in °C (horizontal axis: 21/15, 24/16, 27/19, 30/22, 32/23, 35/24)

Curves labelled: 43 °C, 40 °C, 38 °C, 35 °C, 10 °C, 15 °C, 20 °C, 30 °C, 25 °C

Outside temperature

Heating output, outdoor unit OFAA200MHA026

Heating output in W (vertical axis, 0–3500)
Outside temperature (DB/WB) in °C (horizontal axis: -15, -10, -7/-8, 2/1, 7/6, 12/11, 18/16, 24/20)

Curves labelled: 10 °C, 20 °C, 27 °C

Supply air temperature

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Vitoclima 200-S, single split air conditioning unit (cont.)

Power consumption, heating, outdoor unit OFAA200MHA026

Supply air temperature
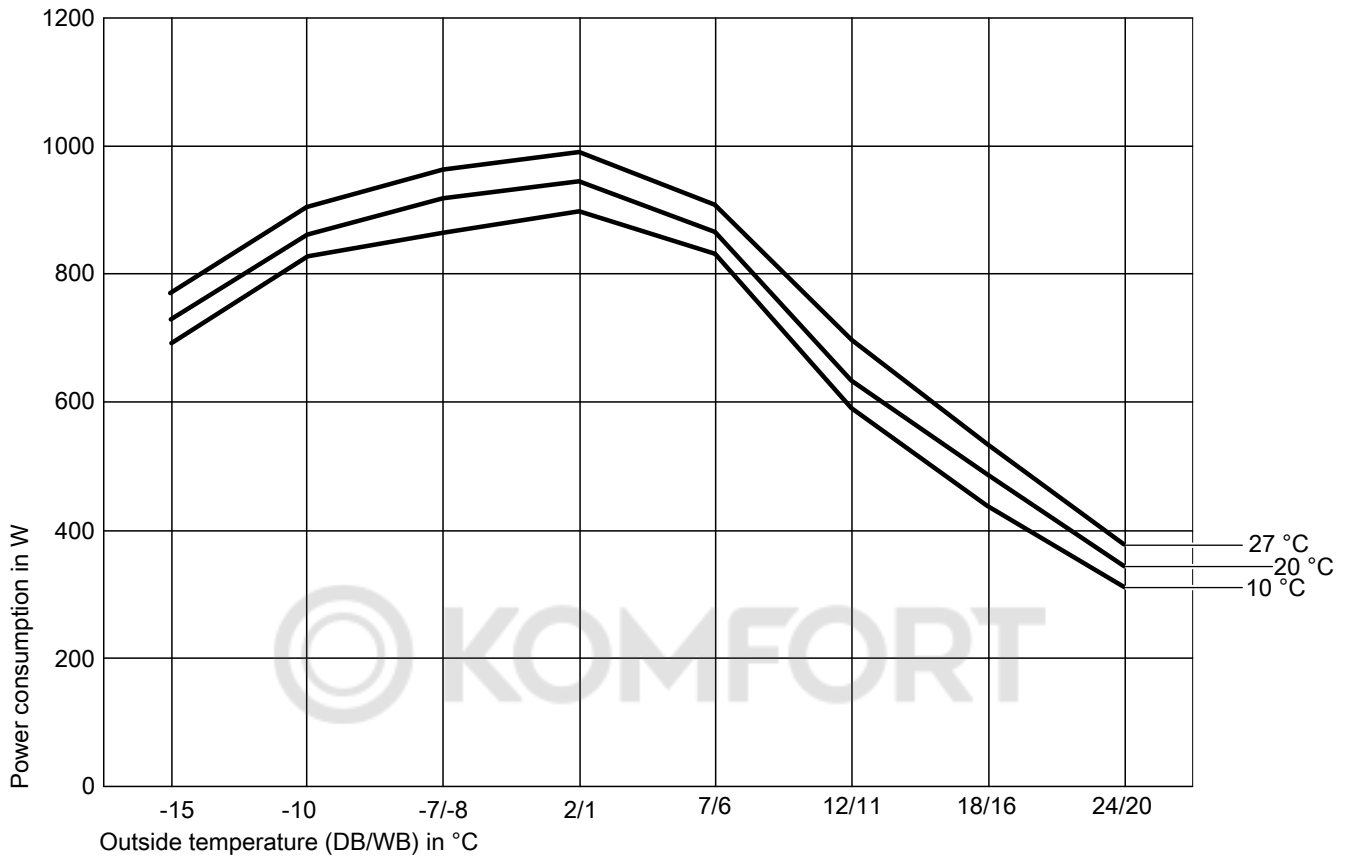
Performance graphs, type OFAA200MHA032

Cooling capacity, outdoor unit OFAA200MHA032
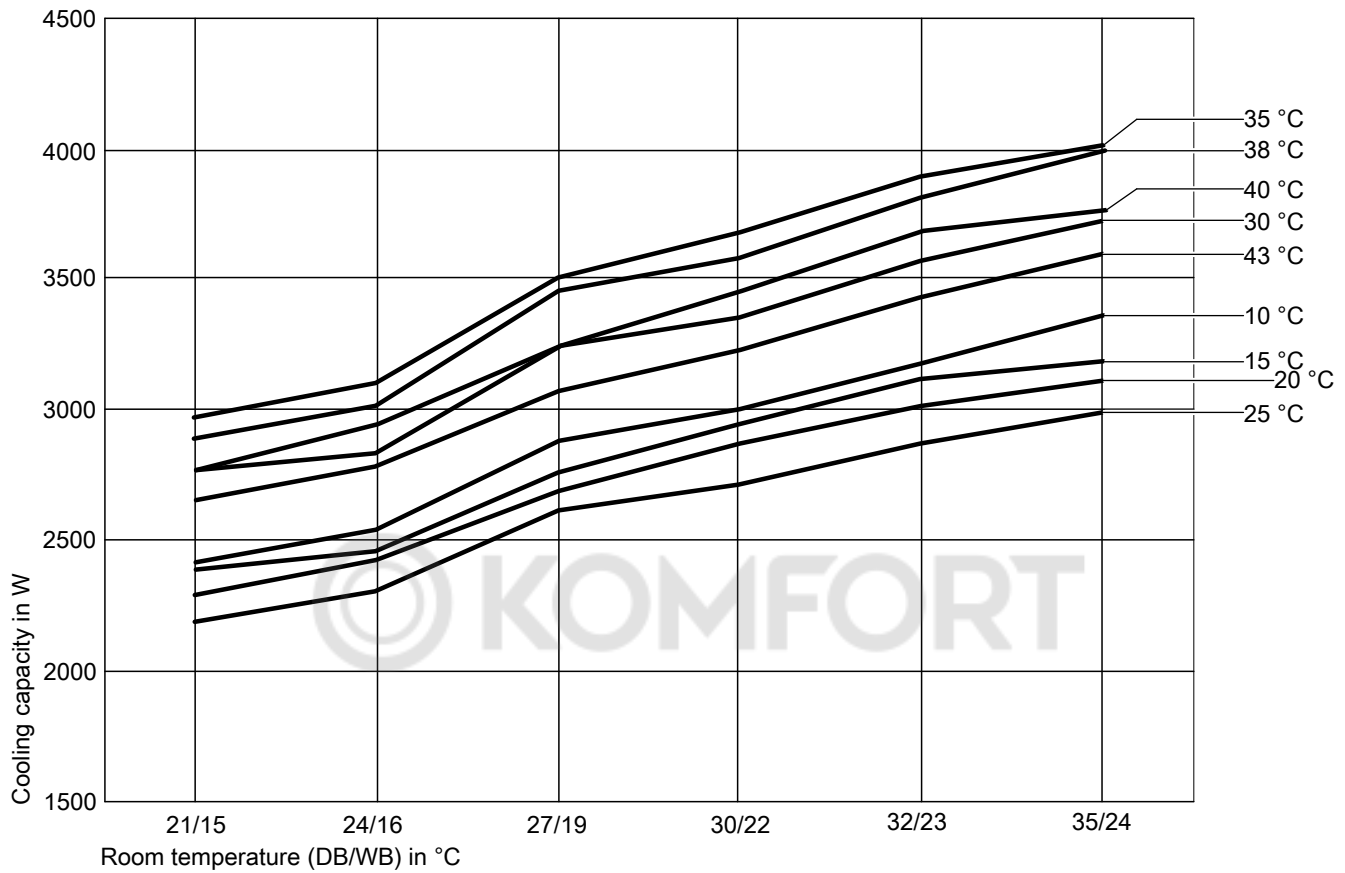
Outside temperature

Power consumption, cooling, outdoor unit OFAA200MHA032

Outside temperature

Heating output, outdoor unit OFAA200MHA032

Supply air temperature (relative humidity 46 %)

Power consumption, heating, outdoor unit OFAA200MHA32
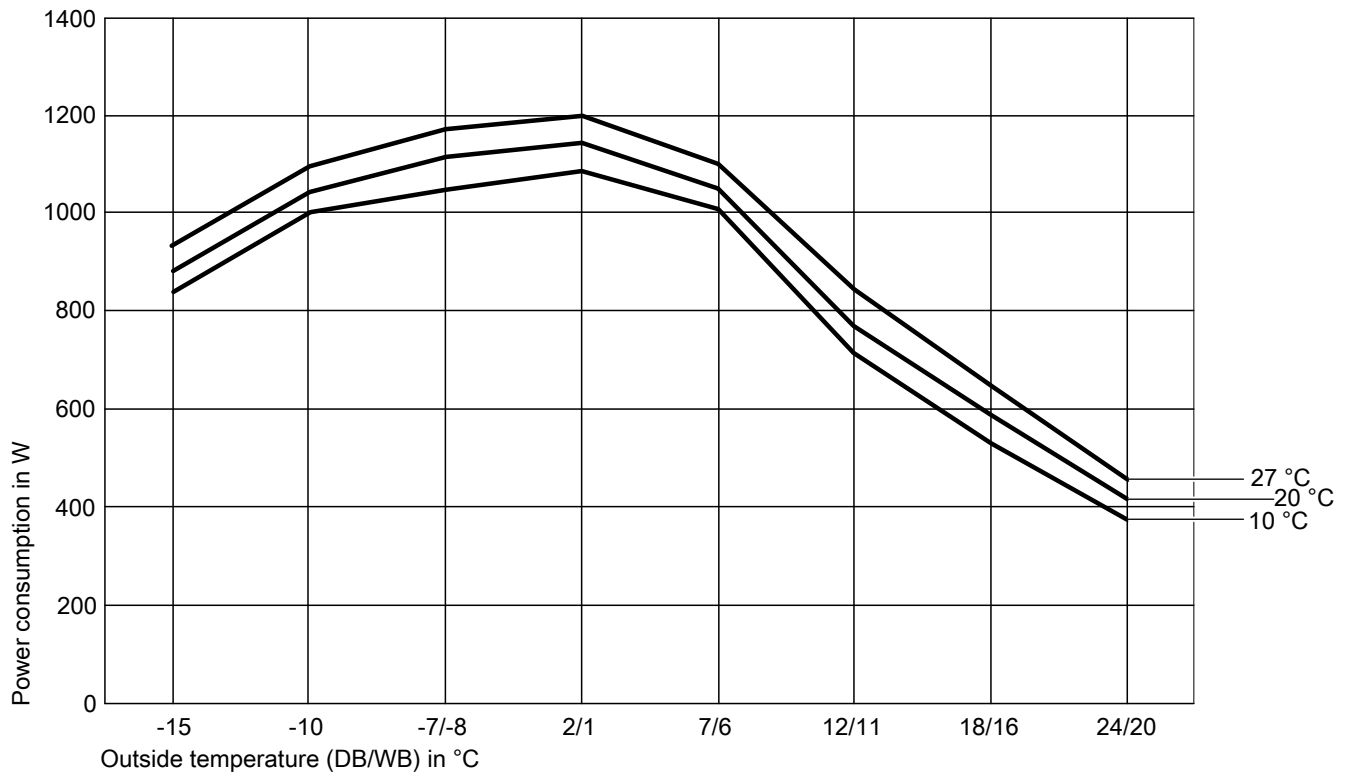
Supply air temperature (relative humidity 46 %)

Performance graphs, type OFAA200MHA050
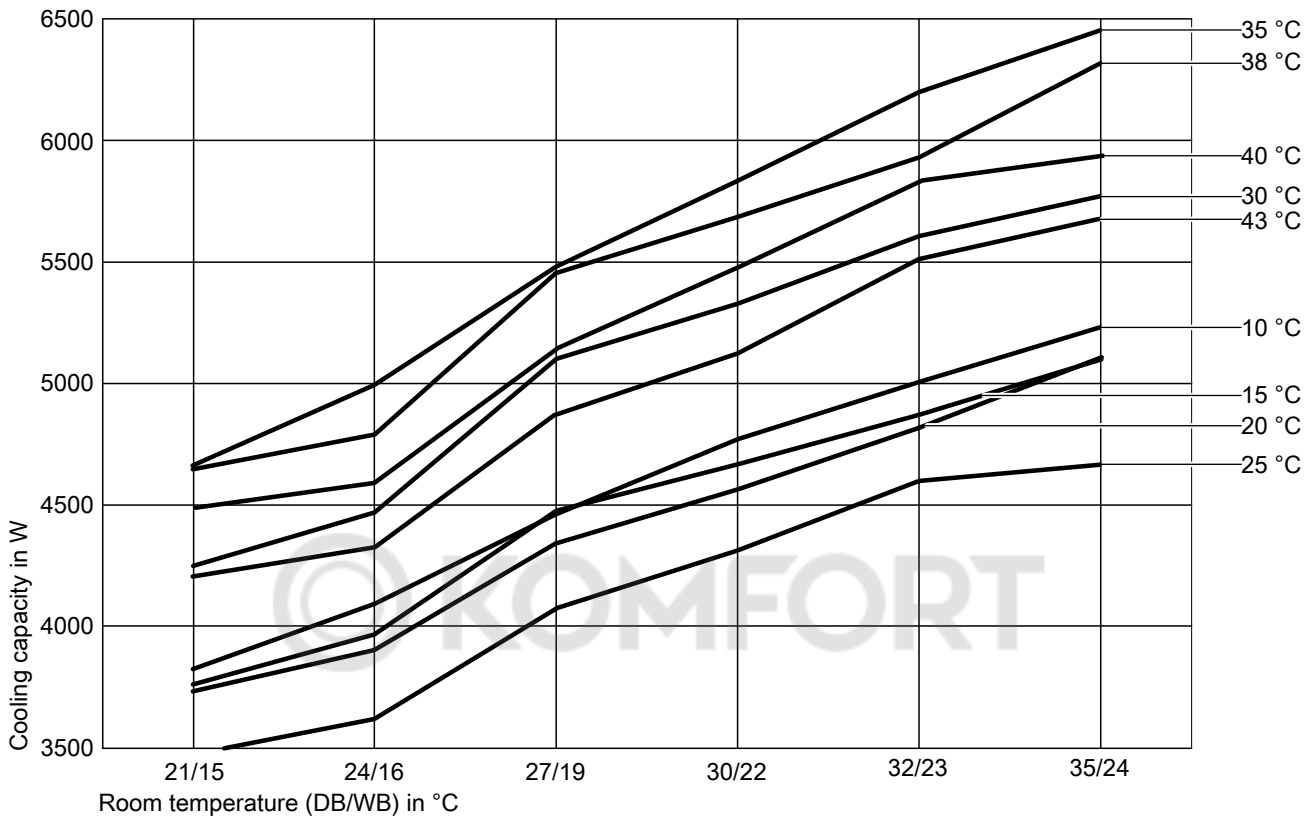
Cooling capacity, outdoor unit OFAA200MHA050

Outside temperature (relative humidity 46 %)

Power consumption, cooling, outdoor unit OFAA200MHA050
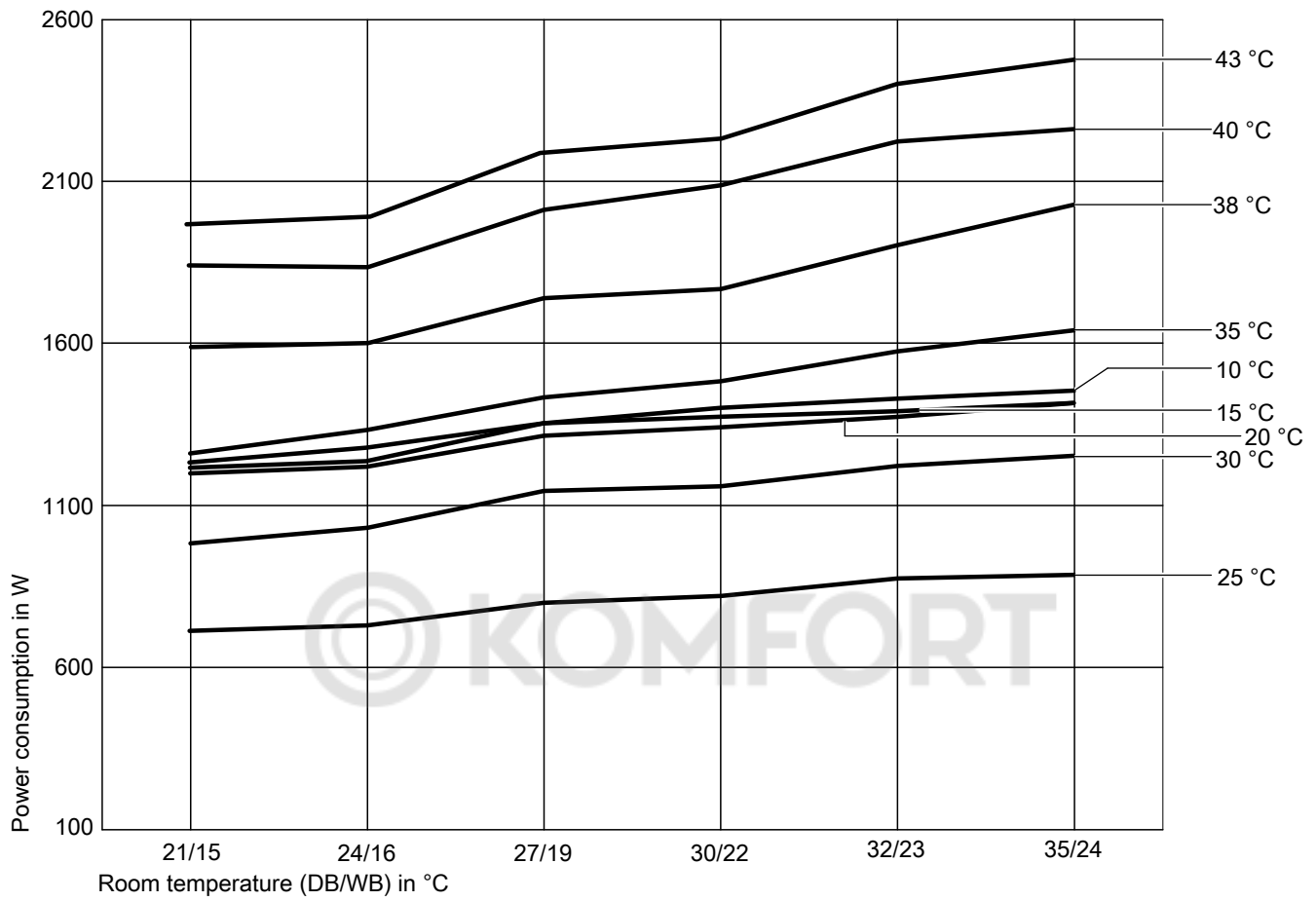
Indoor temperature (relative humidity 46 %)

Heating output, outdoor unit OFAA200MHA050

Heating output in W

Room temperature (DB/WB) in °C

— 10 °C
— 20 °C
— 27 °C
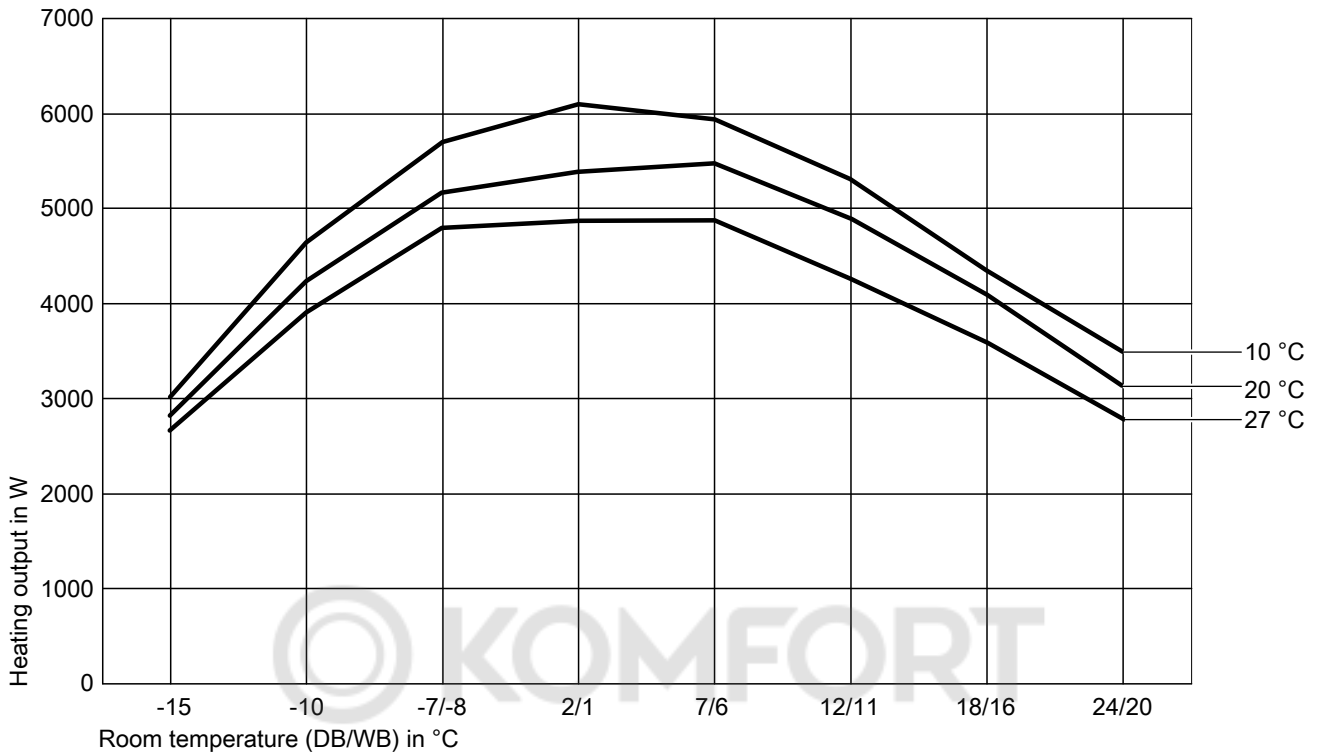
Outside temperature

Power consumption, heating, outdoor unit OFAA200MHA50
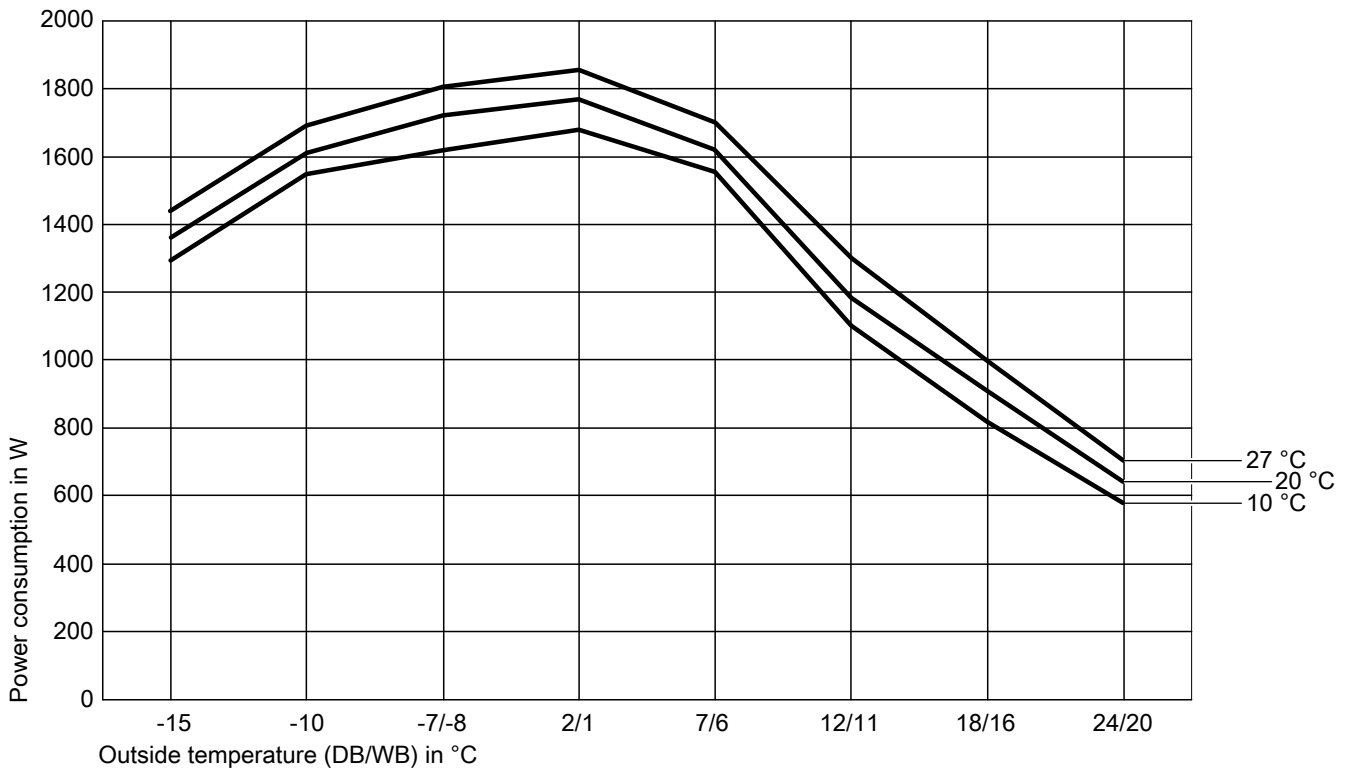
Power consumption in W

Outside temperature (DB/WB) in °C

— 27 °C
— 20 °C
— 10 °C

Supply air temperature (relative humidity 46 %)

4

Performance graphs, type OFAA200MHA068

Cooling capacity, outdoor unit OFAA200MHA068
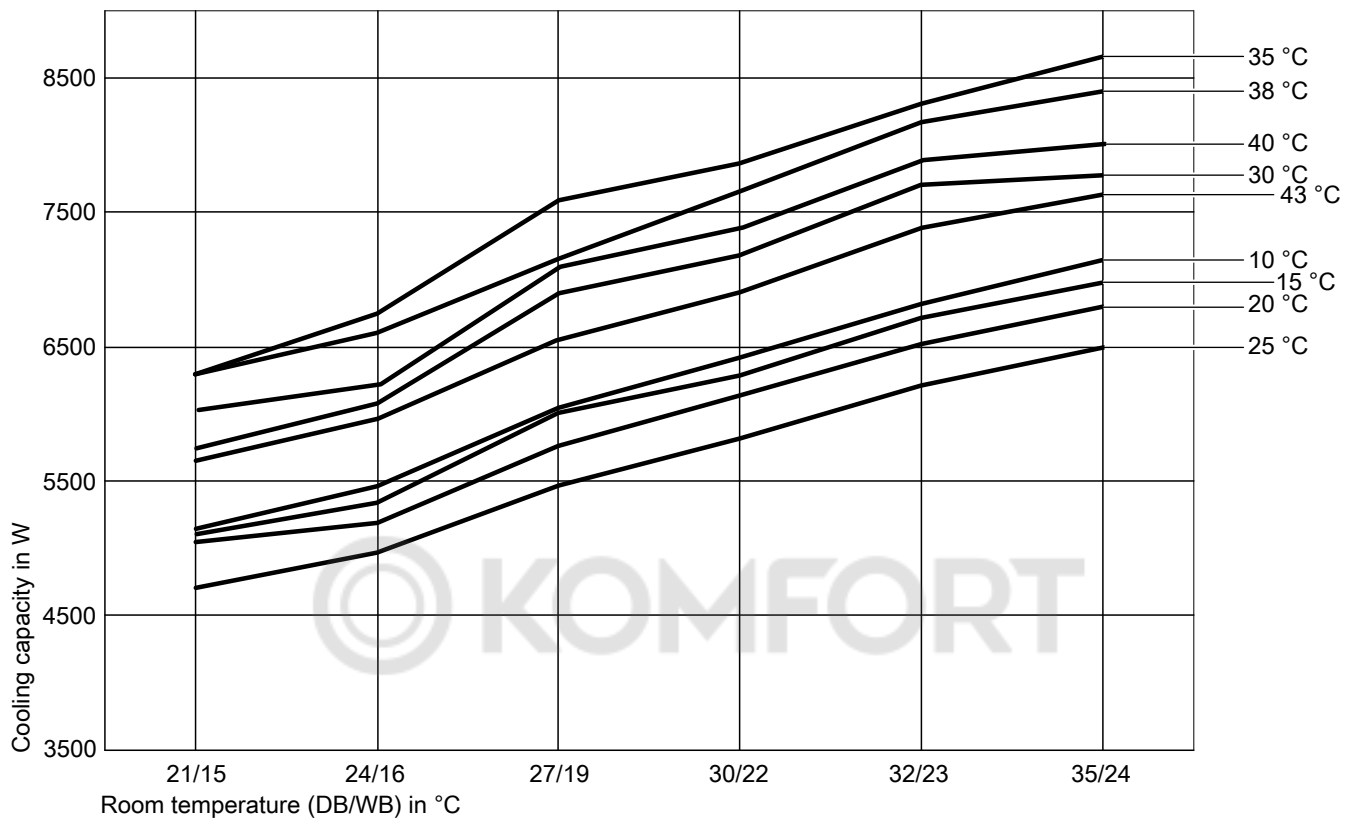
Outside temperature

Vitoclima 200-S, single split air conditioning unit (cont.)
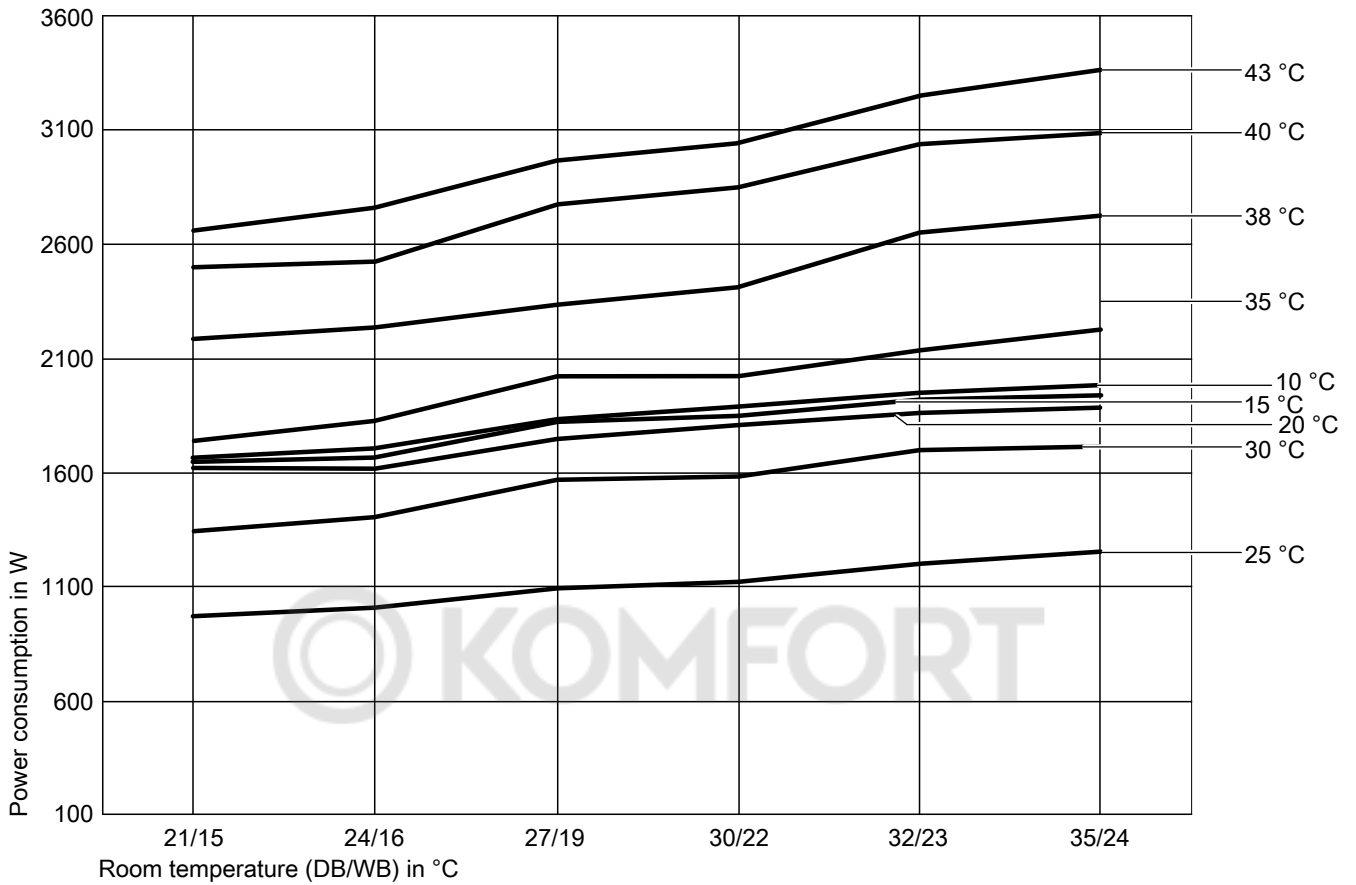
Power consumption, cooling, outdoor unit OFAA200MHA068

Outside temperature

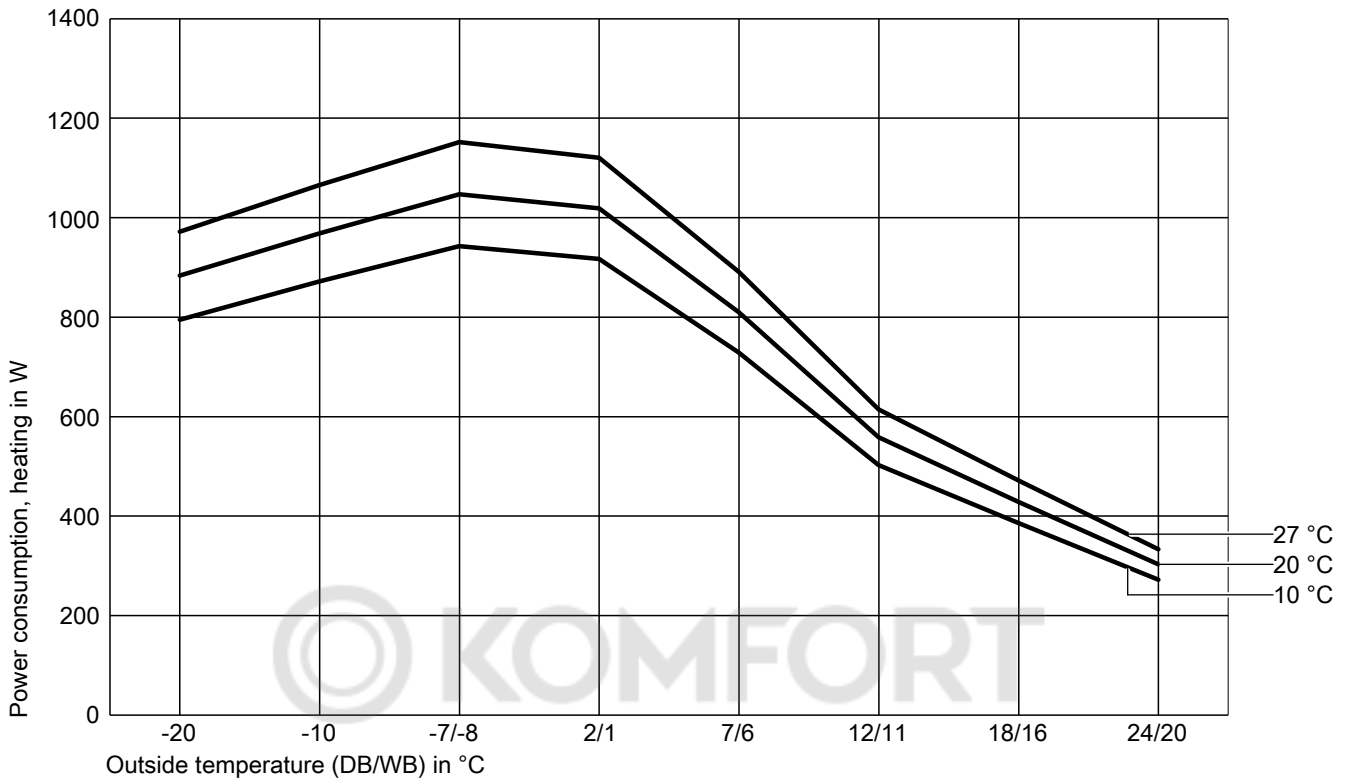**Heating output, outdoor unit OFAA200MHA068**
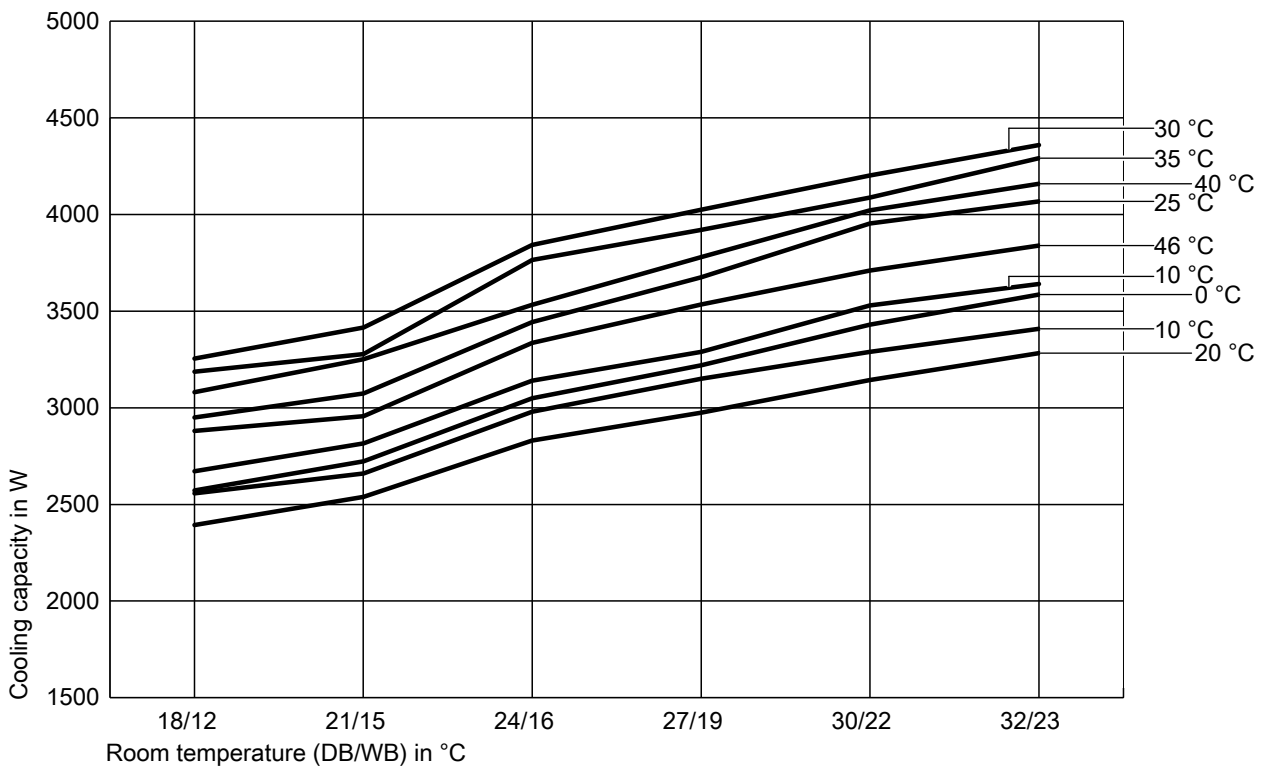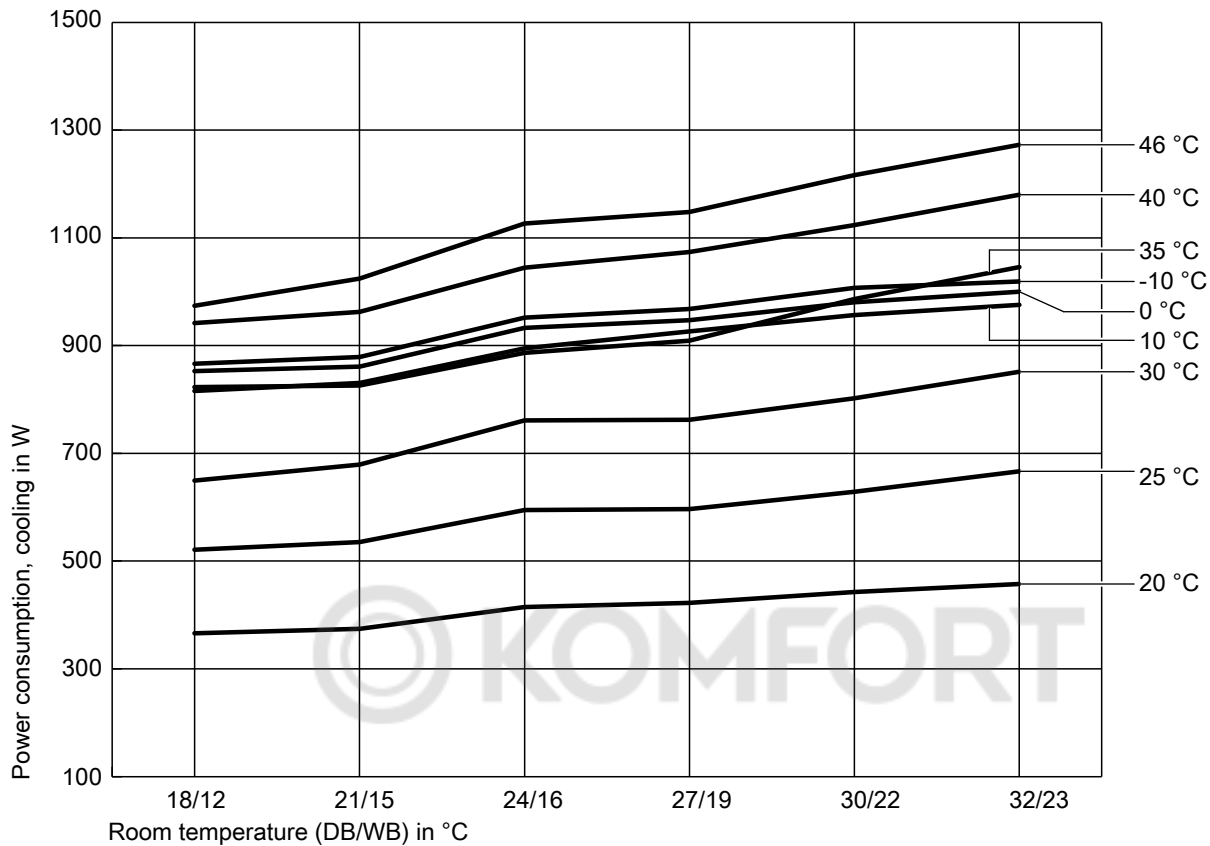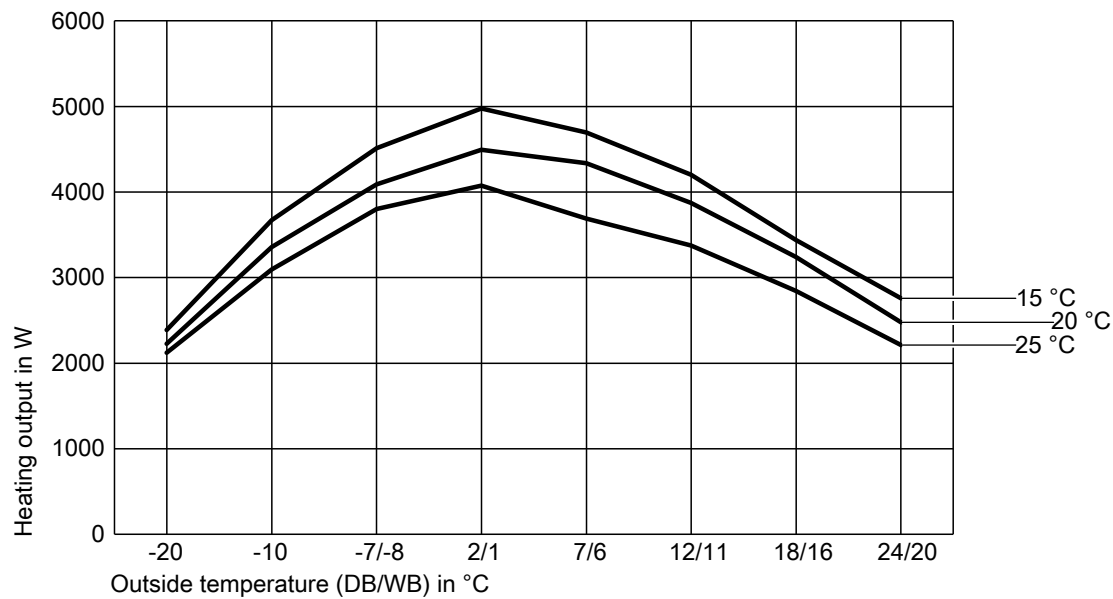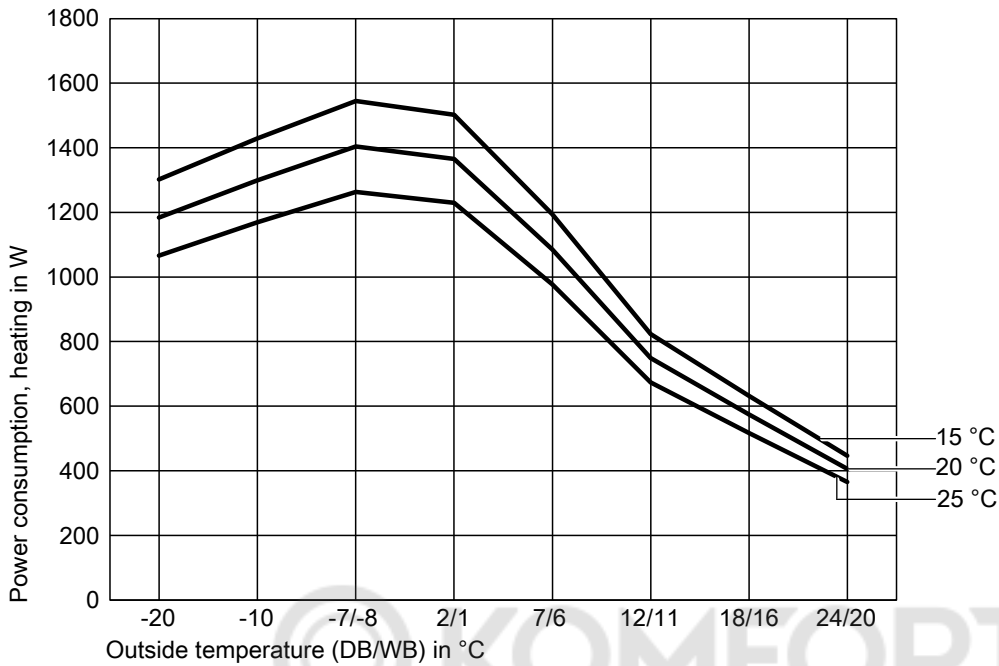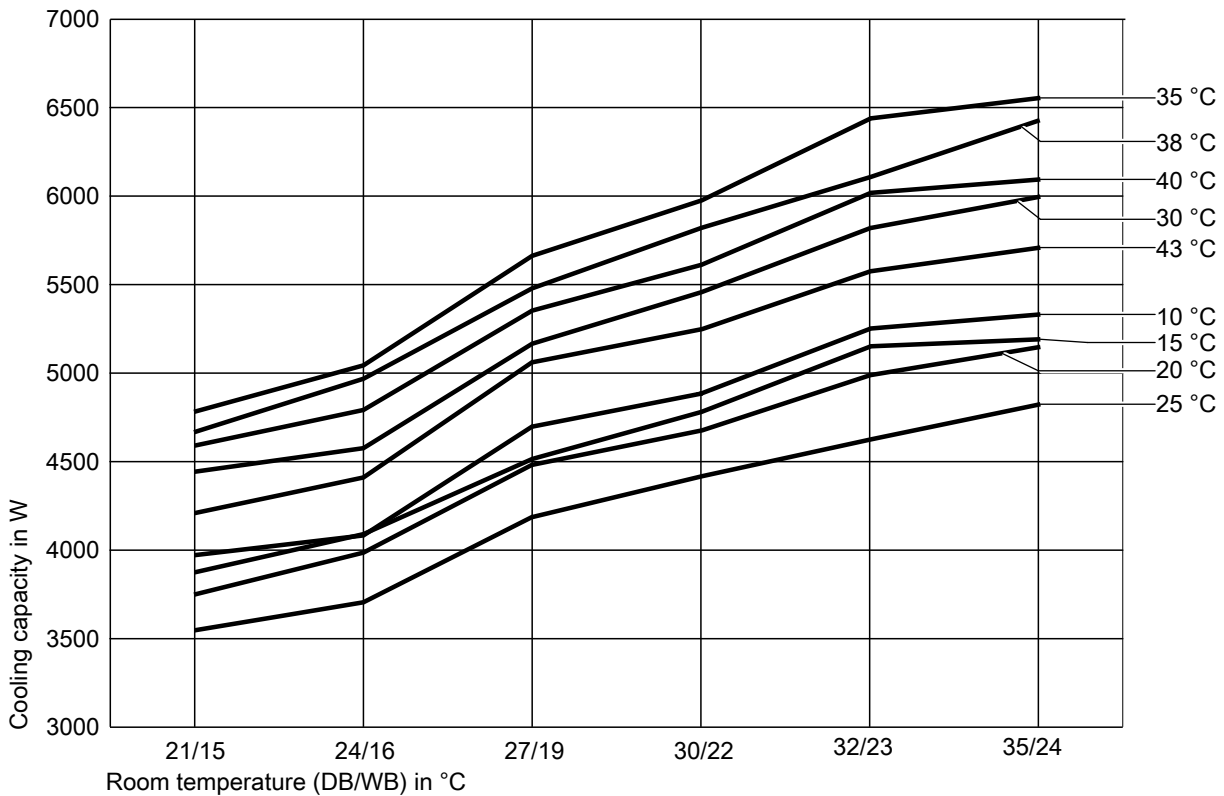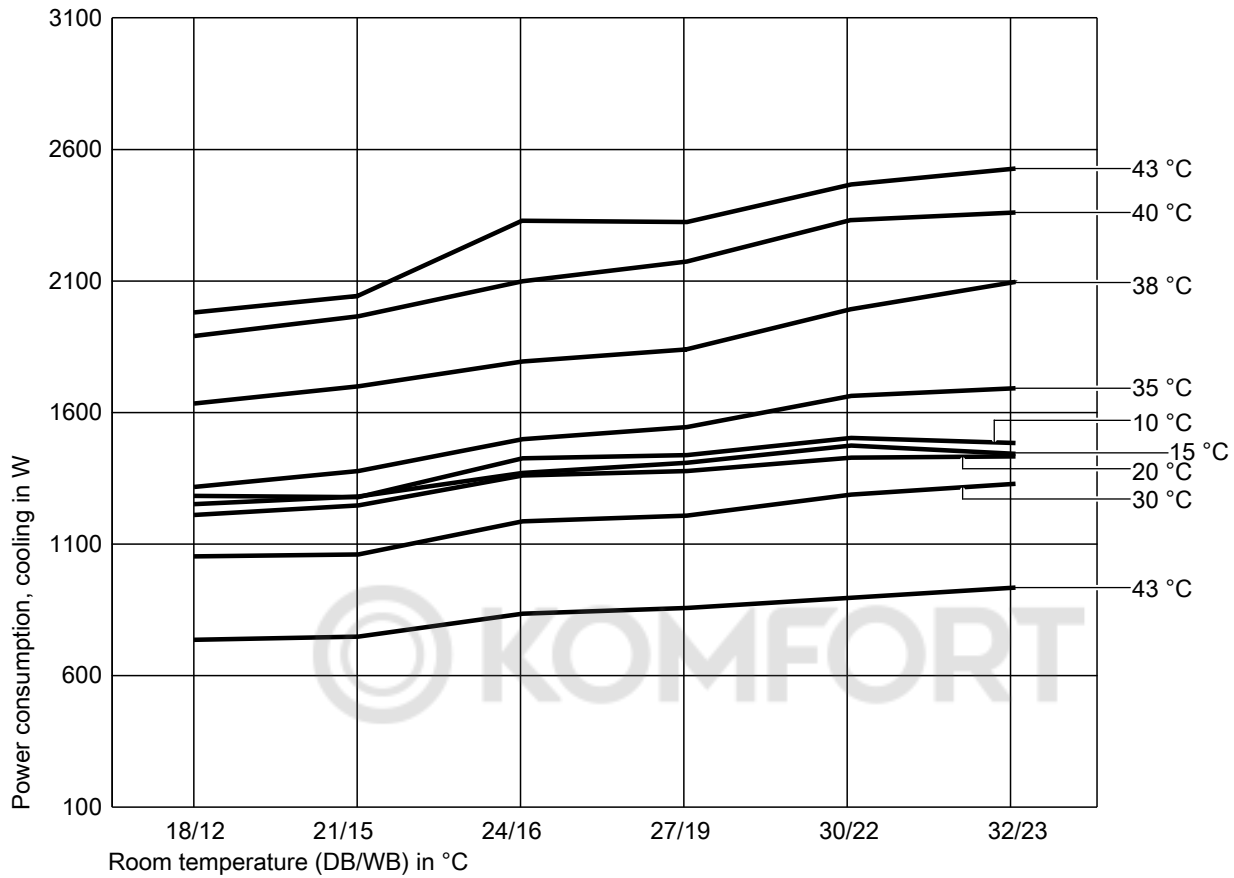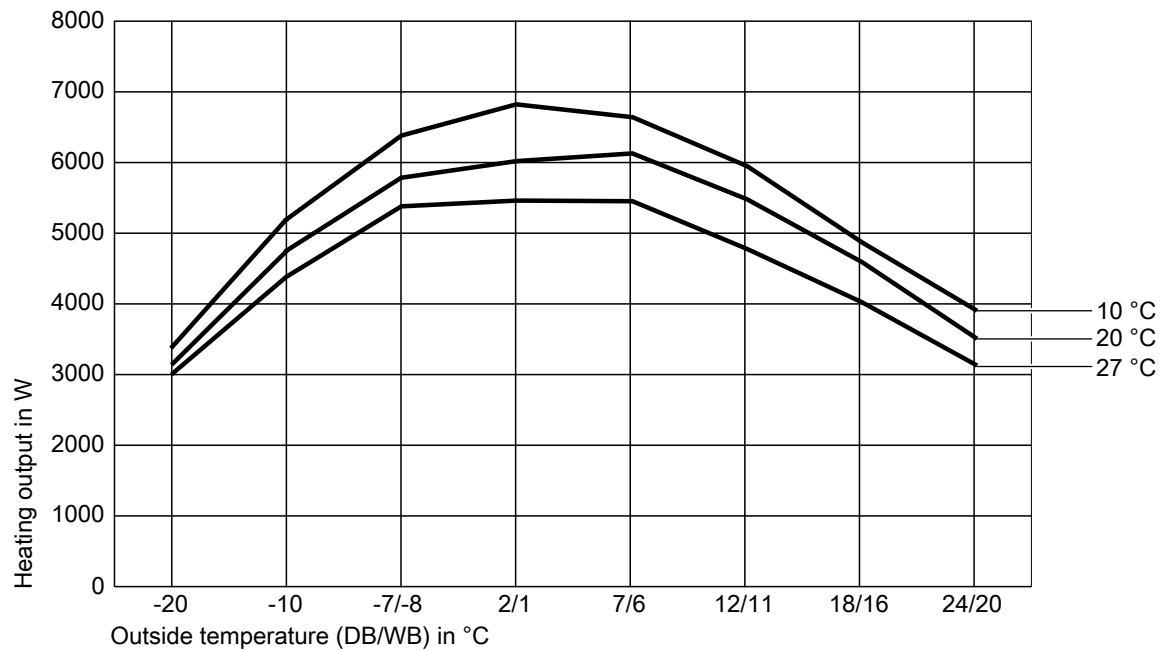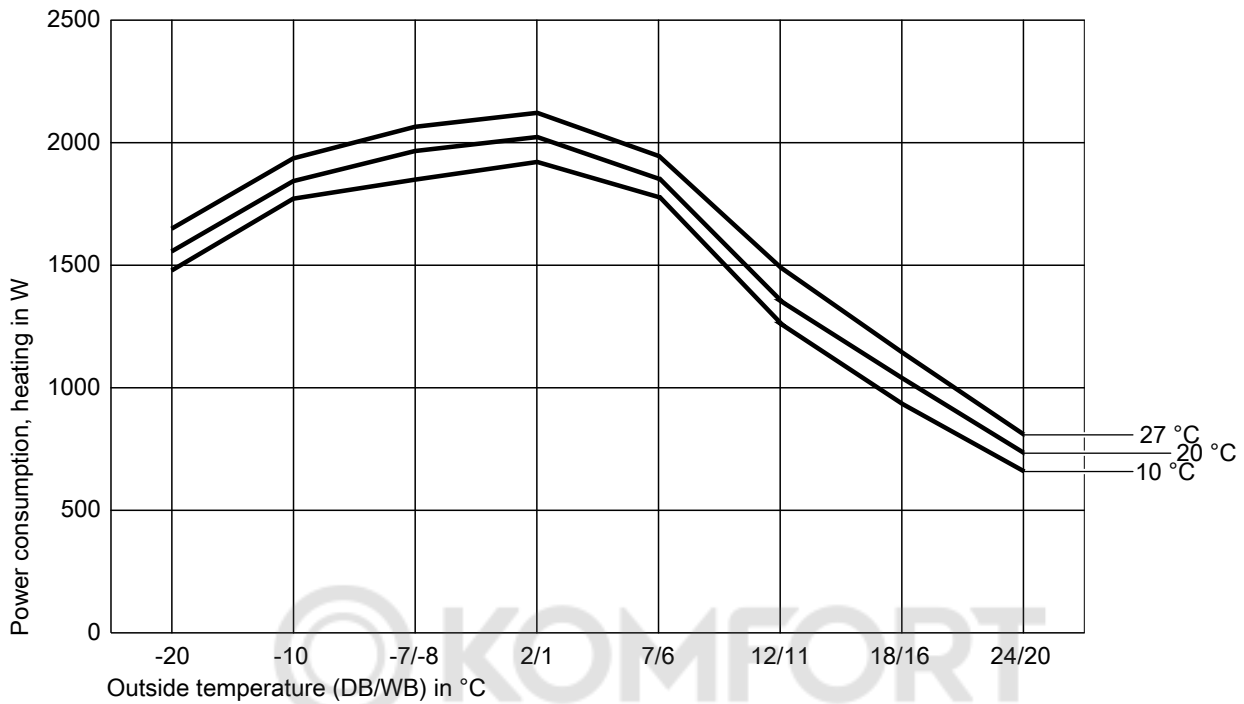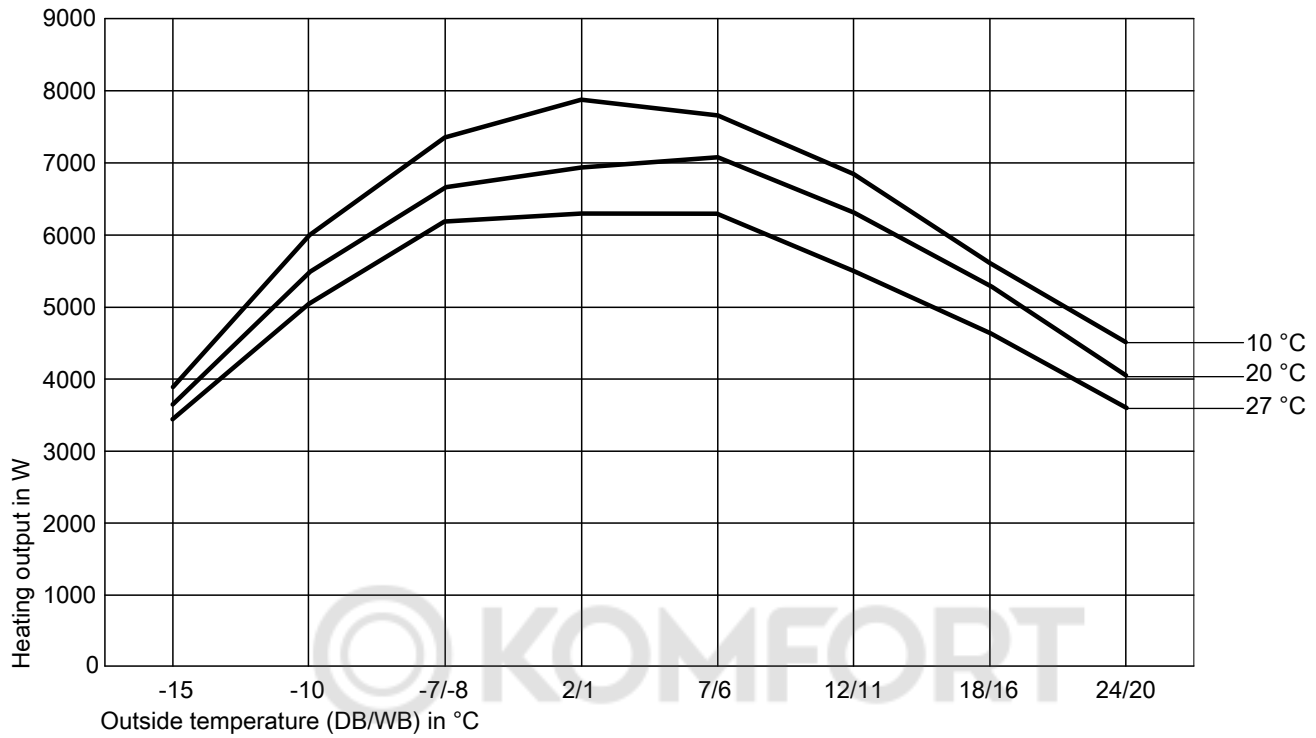

Supply air temperature

Power consumption, heating, outdoor unit OFAA200MHA68
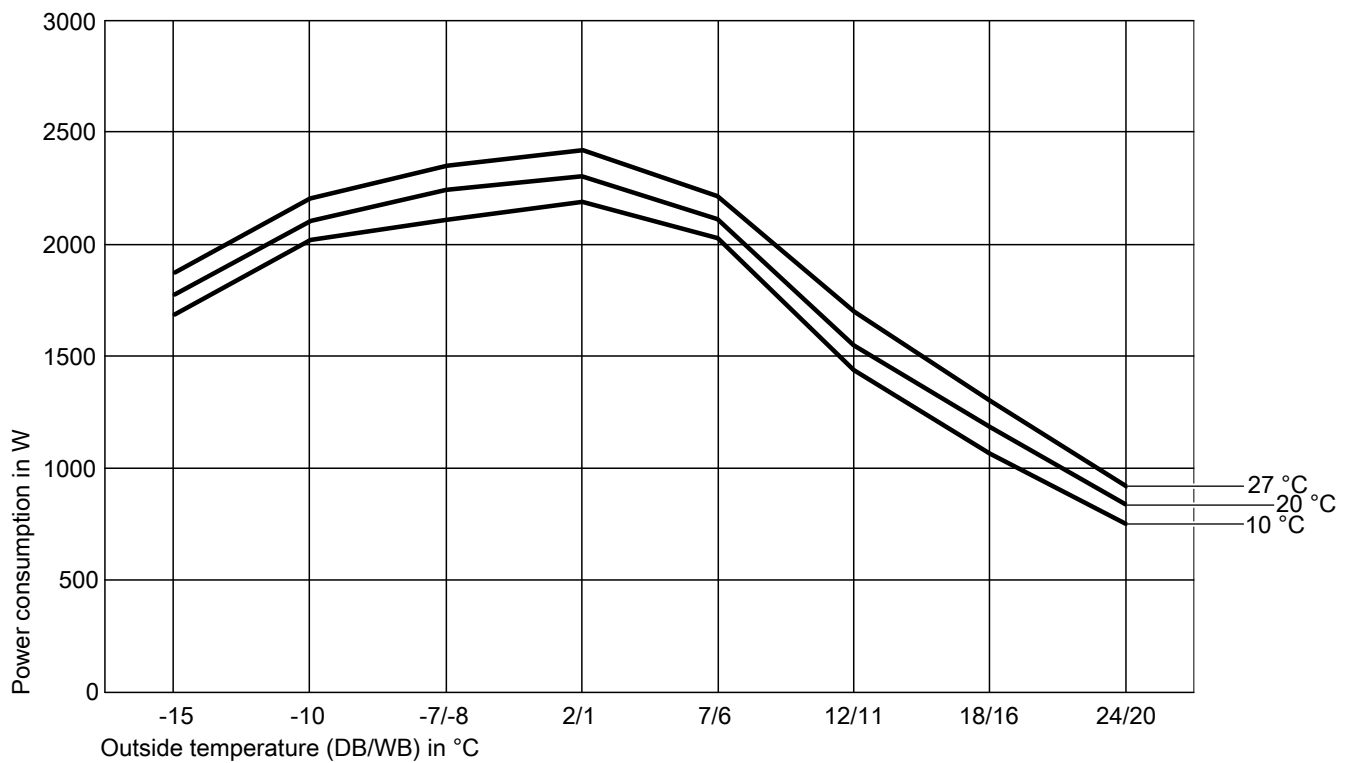
Supply air temperature

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Vitoclima 200-S, multi split air conditioning unit

5.1 Product description

Multi split air conditioning unit with DC inverter technology
- System comprising outdoor unit and indoor units. Indoor units are selected according to output and the installation situation.

Indoor unit
- Type IWAA300MHA022 ... 052 for wall mounting, white
- Type IWAA300MHA022-S ... 052-S for wall mounting, silver
- Type IWAA200MHA022 ... 050 for wall mounting

- Type IC4AA200MHA026 ... 050, type IC8AA200MHA071 ceiling cassette
- Type IFCAA200MHA035 ... 071 for mounting on the wall, floor or ceiling
- Type IDLAA200MHA025 ... 071 for installation in a short duct in a suspended ceiling, supply pressure: 0 to 40 Pa
- Type IDMAA200MHA035 ... 071 for installation in a duct, supply pressure: 25 to 150 Pa

Benefits

Outdoor unit

Ⓐ Air diffuser
Ⓑ Air inlet
Ⓒ Connection pipe and electrical cables
Ⓓ Condensate drain hose

Multi split air conditioning units with DC inverter technology
- Convenient room climate solution: Heating, cooling and dehumidification via reversible operating mode and air treatment
- Indoor unit with high efficiency heat exchanger and passive air filter function
- Compact outdoor unit and indoor units with coated heat exchanger for a lastingly efficient, antibacterial operating mode and self-cleaning function
- Low running costs thanks to high SCOP/SEER and efficiency class up to A++ for heating and A+++ for cooling
- Output control and DC inverter for high efficiency even in partial load operation
- Application range: heating down to –15 °C/cooling up to +46 °C (depending on model)
- Microprocessor control for monitoring and maintaining room air temperature and humidity
- Easy to use infrared remote control unit with numerous comfort functions
- Quiet operation due to variable speed fans and sound insulation measures

Delivered condition

Standard delivery/equipment level
Complete air conditioning unit, type OFAA200MHA050 ... 105

- Outdoor unit
  – Factory-filled with refrigerant R32
  – Flange connections
  – Inverter-controlled, silenced rotating piston compressor
  – 4-way valve and electronic expansion valve
- Product documentation

5

5.2 Outdoor unit specification

Specification

Vitoclima 200-S multi split, outdoor unit ODU combined with Vitoclima 300-S indoor units	Type	OFAA200MHA050	OFAA200MHA070	OFAA200MHA085	OFAA200MHA105
Cooling mode					
Rated cooling capacity	kW	4.6	7.0	8.5	10
Output range	kW	1.3 to 6.0	2.4 to 7.6	3.2 to 9.5	3.2 to 11.0
Power consumption	kW	0.35 to 2.1	0.35 to 2.7	0.35 to 3.5	0.35 - 4.1
Annual energy consumption	kWh/a	189	283	436	506
Application range, cooling	°C	−10 to 43	−10 to 46	−10 to 46	−10 to 46
Energy efficiency, cooling, (SEER/EER)		8.5/4.5	8.5/4.5	7.0/3.4	7.0/3.0
Efficiency class		A+++	A+++	A++	A++
Heating mode					
Rated heating output	kW	5.2	7.6	9.3	10.5
Output range	kW	1.6 to 6.1	2.9 to 8.5	4.4 to 10.5	4.4 to 11.5
Power consumption	kW	2.3	2.3	3.4	3.4
Annual energy consumption, average	kWh/a	1217	1760	2325	2665
Application range, heating (outside temperature)	°C	−15 to 24	−15 to 24	−15 to 24	−15 to 24
Energy efficiency, heating					
SCOP/COP (average climate)		4.6/4.7	4.6/4.0	4.2/3.9	4.2/3.7
Efficiency class (average climate)		A++	A++	A+	A+
Outdoor unit					
Max. number of connectible indoor units		2	3	4	5
Dimensions (width x length x height)	mm	800 x 275 x 553	890 x 340 x 700	890 x 340 x 700	920 x 372 x760
Weight	kg	36	54	61	66
Air flow rate, max.	m³/h	2400	3000	4000	4200
Sound power level, max.	dB(A)	63	66	68	70
Refrigerant		R32	R32	R32	R32
Charge weight	g	1100	1600	2200	2400
Additional refrigerant charge per m of line	g/m	20	20	20	20
Operating pressure, refrigerant (low pressure)	MPa	0.15	0.15	0.15	0.15
Operating pressure, refrigerant (high pressure)	MPa	4.3	4.3	4.3	4.3
Refrigerant connection line, liquid gas	mm	2 x 6	3 x 6	4 x 6	5 x 6
Refrigerant connection line, suction gas	mm	2 x 10	3 x 10	3 x 10 1 x 12	3 x 10 2 x 12
Max. line length/height differential IDU/ODU refrigerant lines	m	30/15	60/15	70/15	80/15
Max. line length without additional refrigerant charge	m	20	30	40	40
Electrical values					
Rated voltage		1/N/PE 230 V/50 Hz	1/N/PE 230 V/50 Hz	1/N/PE 230 V/50 Hz	1/N/PE 230 V/50 Hz
Max. power consumption	A	9.2	11.9	15.5	18.2
Fuse protection		B 16	B 16	B 16	B 16
Max. power consumption, system	kW	2.3	2.7	3.5	4.1

Outdoor unit, type OFAA200MHA
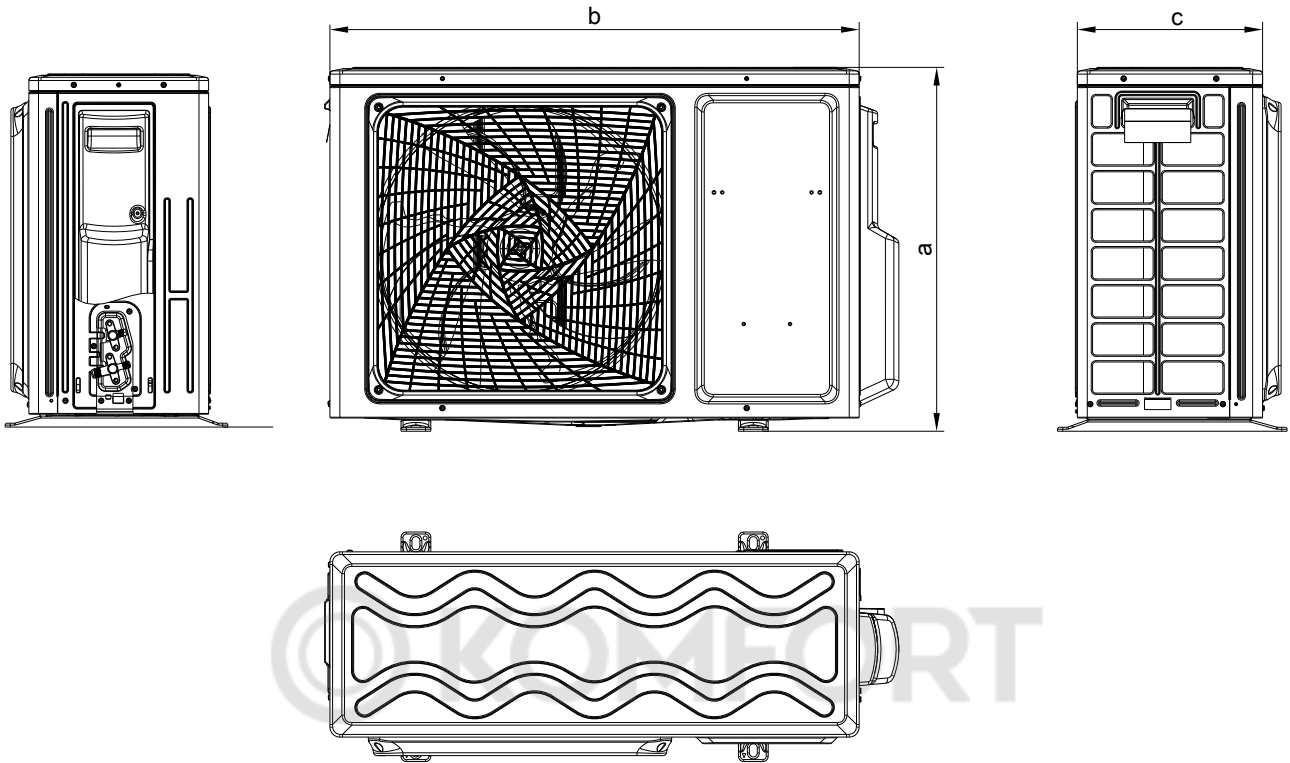
Outdoor unit OFAA200MHA

Dimensions in mm
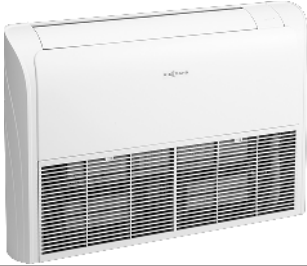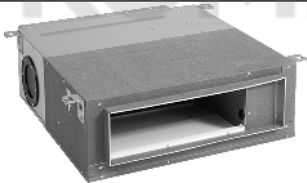
Type	a	b	c
OFAA200MHA050	553	800	275
OFAA200MHA070	700	890	340

Type	a	b	c
OFAA200MHA085	700	890	340
OFAA200MHA105	760	920	372

5.3 Overview of indoor units

Indoor unit	Image	Description and application range
Vitoclima 300-S, type IWAA300MHA Wall mounted See page 44.	Colour: White Colour: Silver	Premium indoor units with numerous comfort and hygiene functions – Used in living spaces, e.g. bedrooms, living rooms, studies – Available in white and silver
Vitoclima 200-S, type IWAA200MHA Wall mounted See page 45.		High grade indoor units with comfort and hygiene functions – Used in living spaces, e.g. bedrooms, living rooms, studies

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Indoor unit	Image	Description and application range
Vitoclima 200-S, type IC4/8AA200MHA Ceiling cassette See page 46.		For installation in suspended ceilings
Vitoclima 200-S, type IFCAA200MHA0 Floor/ceiling See page 47.		A variety of installation options – Ceiling mounting without duct system, free blowing – Installation on wall/floor as fan coil
Vitoclima 200-S, type IDLAA200MHA Duct installation, low supply pressure See page 49.		For duct system with low supply pressure – Pressure drop up to max. 40 Pa – Free blowing, no duct system – Including outlet grille for intake and discharge apertures
Vitoclima 200-S, type IDMAA200MHA Duct installation, medium supply pressure See page 49.		For duct system with medium supply pressure – Pressure drop up to max. 150 Pa – Can be connected to duct systems

5.4 Indoor unit for wall mounting

Vitoclima 300-S indoor unit for wall mounting
■ Web-enabled through integral WiFi interface for operation via app
■ Eco sensor for maximum comfort and energy savings, e.g. presence and light detection as well as smart heating and cooling functions
■ IFD filter: Dielectric, active and cleanable filter to reduce e.g. fine dust, bacteria and viruses
■ Very quiet operation, sound power level up to just 15 dB(A) in reduced mode

■ 3D air routing for optimum air flow, adapted for heating and cooling operation
■ Self-cleaning function
■ Self Hygiene: Indoor unit sterilisation program for disinfecting the heat exchanger surfaces and silver nanoparticles on the surfaces in contact with air
■ Available in white or silver

Standard delivery/equipment level

■ Indoor unit
■ Infrared remote control units VIR 300

Specification for Vitoclima 200-S, indoor unit type IWAA300MHA

Type		IWAA300MHA022 IWAA300MHA022-S	IWAA300MHA026 IWAA300MHA026-S	IWAA300MHA035 IWAA300MHA035-S	IWAA300MHA052 IWAA300MHA052-S
Rated cooling capacity at operating point A27/A21	kW	2.2	2.6	3.5	5.2
Cooling capacity range	kW	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0	1.4 to 6.0
Heating output range	kW	1.1 to 5.4	1.1 to 5.4	1.3 to 5.8	1.4 to 6.9
Height a	mm	320	320	320	350
Width b	mm	923	923	923	1050
Length c	mm	215	215	215	235
Weight	kg	12	12	12	15
Sound pressure level, min.	dB(A)	15	15	16	28
Sound pressure level, max.	dB(A)	36	36	37	41

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Type		IWAA300MHA022 IWAA300MHA022-S	IWAA300MHA026 IWAA300MHA026-S	IWAA300MHA035 IWAA300MHA035-S	IWAA300MHA052 IWAA300MHA052-S
Dimension, liquid line	Ø mm	6	6	6	6
Dimension, suction line	Ø mm	10	10	10	12
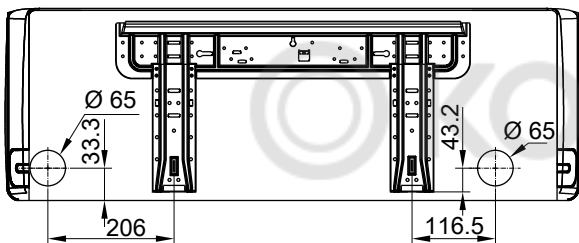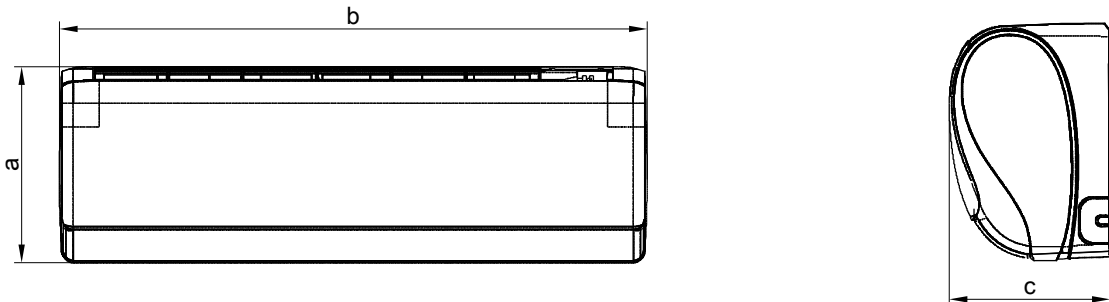
Vitoclima 200-S indoor unit, type IWAA300MHA; for dimensions **a** to **c** see table above

5.5 Indoor unit for wall mounting, type IWAA200MHA

Vitoclima 200-S indoor unit for wall mounting
- Web-enabled through integral WiFi interface for operation via app
- Additional passive filters can be used (accessories)
- Quiet operation, sound power level up to just 18 dB(A) in reduced mode
- Self-cleaning function

- Self Hygiene: Indoor unit sterilisation program for disinfecting the heat exchanger surfaces and silver nanoparticles on the surfaces in contact with air
- UV-C sterilisation and ionisation
- 3D air routing for optimum air flow, adapted for heating and cooling operation

Specification for Vitoclima 200-S, type IWAA200MHA

Type		IWAA200MHA022	IWAA200MHA026	IWAA200MHA032	IWAA200MHA050
Rated cooling capacity at operating point A27/A21	kW	2.2	2.6	3.2	5.0
Cooling capacity range	kW	0.8 to 3.0	0.8 to 3.0	0.8 to 3.6	1.3 to 5.8
Heating output range	kW	0.8 to 3.2	0.8 to 3.2	0.8 to 4.2	1.4 to 6.0
Height **a**	mm	290	290	290	320
Width **b**	mm	805	805	805	975
Length **c**	mm	200	200	200	220
Weight	kg	8	8	8	12
Sound pressure level, min.	dB(A)	18	18	19	28
Sound pressure level, max.	dB(A)	37	37	37	44
Dimension, liquid line	Ø mm	6	6	6	6
Dimension, suction line	Ø mm	10	10	10	12
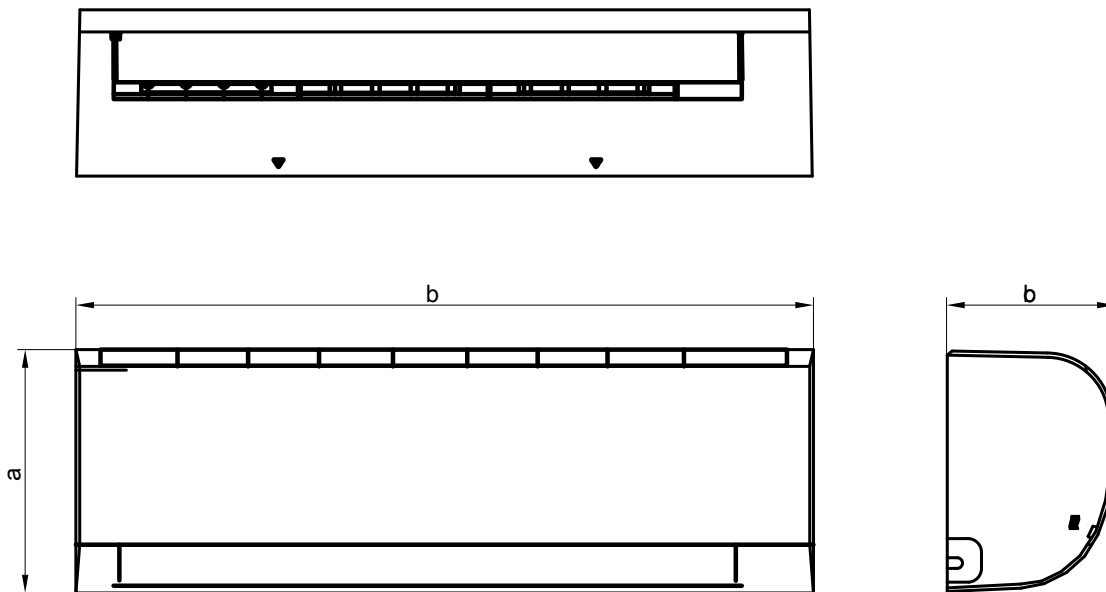
Vitoclima 200-S indoor unit, type IWAA200MHA; for dimensions **a** to **c** see table above

5.6 Indoor unit ceiling cassette, type IC4AA200MHA

Vitoclima 200-S ceiling cassette for installation in a suspended ceiling

- Quiet operation
- Heat exchanger self-cleaning function
- Passive filters for additional air purification integrated as accessories

Ⓐ Gas line
Ⓑ Liquid line
Ⓒ Condensate drain
Ⓓ Air inlet grille

Ⓔ Air diffuser
Ⓕ Condensate pipe (accessories)
Ⓖ Cable entry for power cable
Ⓗ Cable entry for control unit

Standard delivery/equipment level

- Indoor unit
- Ceiling diffuser/panel
- Infrared remote control VWC1

Specification for Vitoclima 200-S, type IC4/8AA200MHA

Type		IC4AA200MHA026	IC4AA200MHA035	IC4AA200MHA050	IC8AA200MHA071
Rated cooling capacity at operating point A27/A21	kW	2.6	3.5	5.0	7.1
Rated heating output	kW	3.2	4.0	5.5	8.0
Cassette dimensions					
Width **a**	mm	570	570	570	840
Length **b**	mm	570	570	570	840
Height **c**	mm	260	260	260	204
Cover plate dimensions					
Width **d**	mm	620	620	620	950
Length **e**	mm	620	620	620	950
Height **f**	mm	60	60	60	50
Weight	kg	17	19	19	27
Sound pressure level, min.	dB(A)	23	27	32	35
Sound pressure level, max.	dB(A)	31	36	42	42
Dimension, liquid line	Ø mm	6	6	6	6
Dimension, suction line	Ø mm	10	10	12	16
Required ceiling cut-out	mm	585	585	585	890
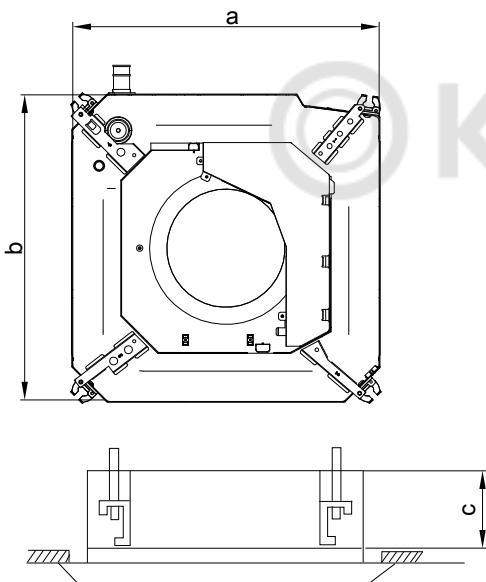
For ceiling cassette dimensions see table
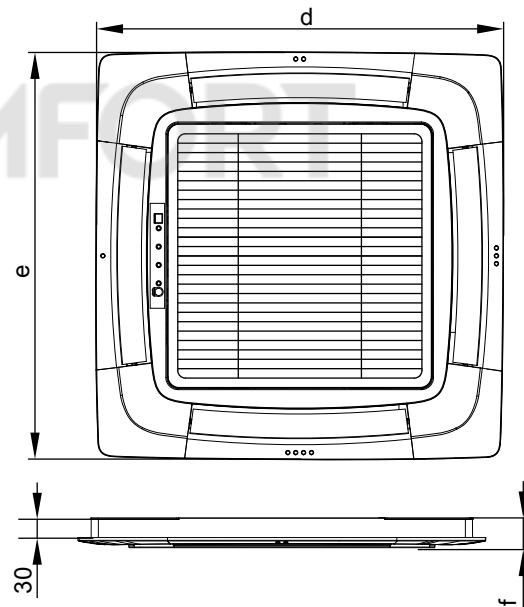
For cover plate dimensions see table

5.7 Indoor unit for mounting on wall, floor or ceiling, type IFCAA200MHA0

Vitoclima 200-S indoor unit for mounting on the wall, floor or ceiling

- Quiet operation
- Heat exchanger self-cleaning function
- Passive filters for additional air purification integrated as accessories
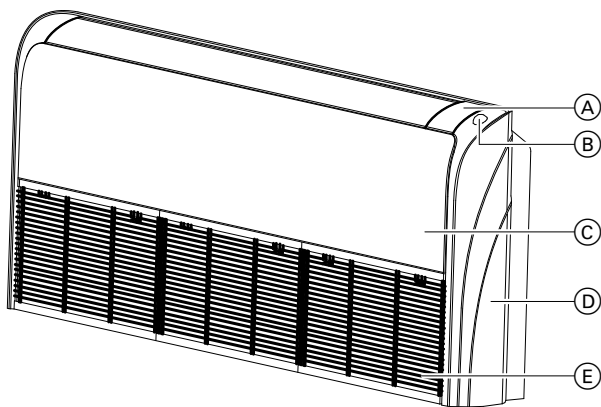
(A) User interface
(B) Presence sensor
(C) Front panel

(D) Cover panel
(E) Inlet grille (inner filter)

Standard delivery/equipment level

■ Indoor unit
■ Infrared remote control VWC1

Specification for Vitoclima 200-S, type IFCAA200MHA

Type		IFCAA200MHA035	IFCAA200MHA050	IFCAA200MHA071
Rated cooling capacity at operating point A27/A21	kW	3.6	5.0	7.1
Rated heating output	kW	4.0	5.8	8.0
Height **a**	mm	680	680	680
Width **b**	mm	1000	1000	1325
Length **c**	mm	230	230	230
Weight	kg	26	26	34
Sound pressure level, min.	dB(A)	30	35	35
Sound pressure level, max.	dB(A)	39	44	43
Dimension, liquid line	Ø mm	6	6	10
Dimension, suction line	Ø mm	10	12	16
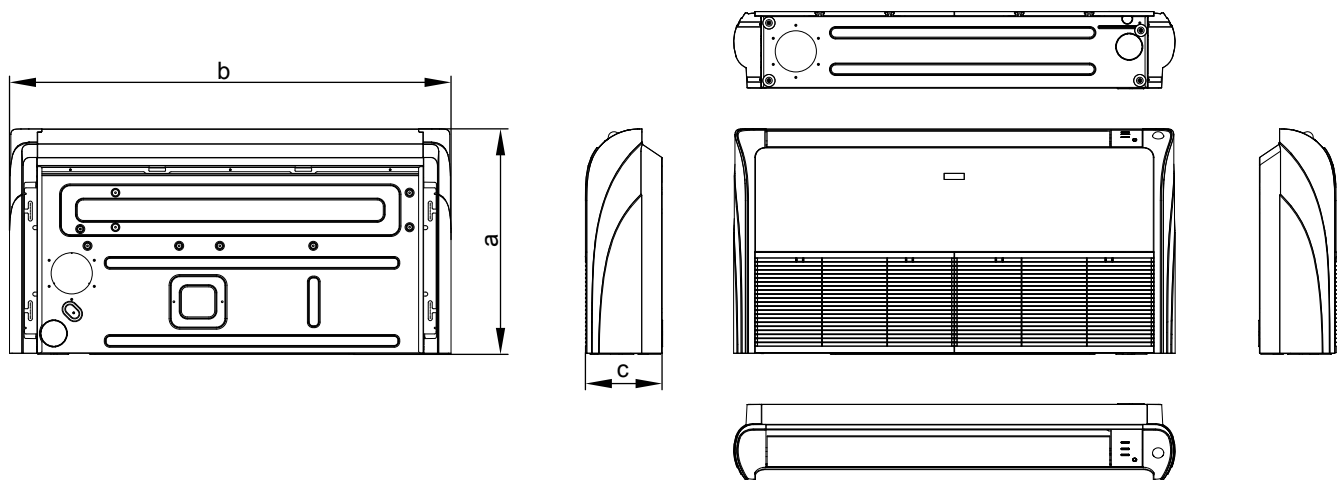
Indoor unit - for dimensions **a** to **c**, see table

5.8 Indoor unit for duct installation, low supply pressure, type IDLAA200MHA

Vitoclima 200-S indoor unit for installation in a short duct in a suspended ceiling. Supply pressure: 0 to 40 Pa

■ Quiet operation
■ Heat exchanger self-cleaning function
■ Passive filters for additional air purification integrated as accessories

Specification

Type		IDLAA200MHA025	IDLAA200MHA035	IDLAA200MHA050	IDLAA200MHA071
Rated cooling capacity at operating point A27/A21	kW	2.5	3.5	5.0	7.1
Rated heating output	kW	3.0	4.0	5.5	7.5
Length **a**	mm	420	420	420	420
Width **b**	mm	850	850	1170	1170
Height **c**	mm	185	185	185	185
Height of duct connection **d**	mm	90	90	90	90
Width of duct connection **e**	mm	760	760	1080	1080
Weight	kg	16	16	22	25
Sound pressure level, min.	dB(A)	25	25	32	42
Sound pressure level, max.	dB(A)	29	33	36	46
Dimensions of liquid line	Ø mm	6	6	6	6
Dimensions of suction line	Ø mm	10	10	12	16
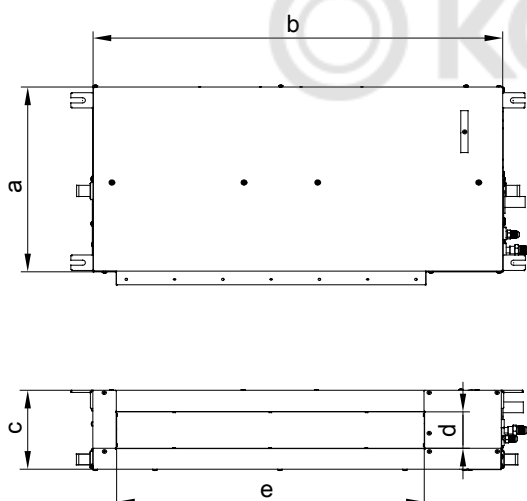
Vitoclima 200-S indoor unit, type IDLAA200MHA; for dimensions see table above

5.9 Indoor unit for duct installation, medium supply pressure, type IDMAA200MHA

Vitoclima 200-S indoor unit for installation in a duct. Supply pressure: 25 to 150 Pa

■ Quiet operation
■ Heat exchanger self-cleaning function
■ Passive filters for additional air purification integrated as accessories

Specification

Type		IDMAA200MHA035	IDMAA200MHA050	IDMAA200MHA071
Rated cooling capacity at operating point A27/A21	kW	3.5	5.0	7.1
Rated heating output	kW	4.0	6.0	8.0
Height	mm	248	248	248
Width	mm	700	1100	1100
Length	mm	700	700	700
Weight	kg	26	31	31
Sound pressure level, min.	dB(A)	28	28	36
Sound pressure level, max.	dB(A)	41	43	44

Type		IDMAA200MHA035	IDMAA200MHA050	IDMAA200MHA071
Dimensions of liquid line	Ø mm	6	6	10
Dimensions of suction line	Ø mm	10	12	16
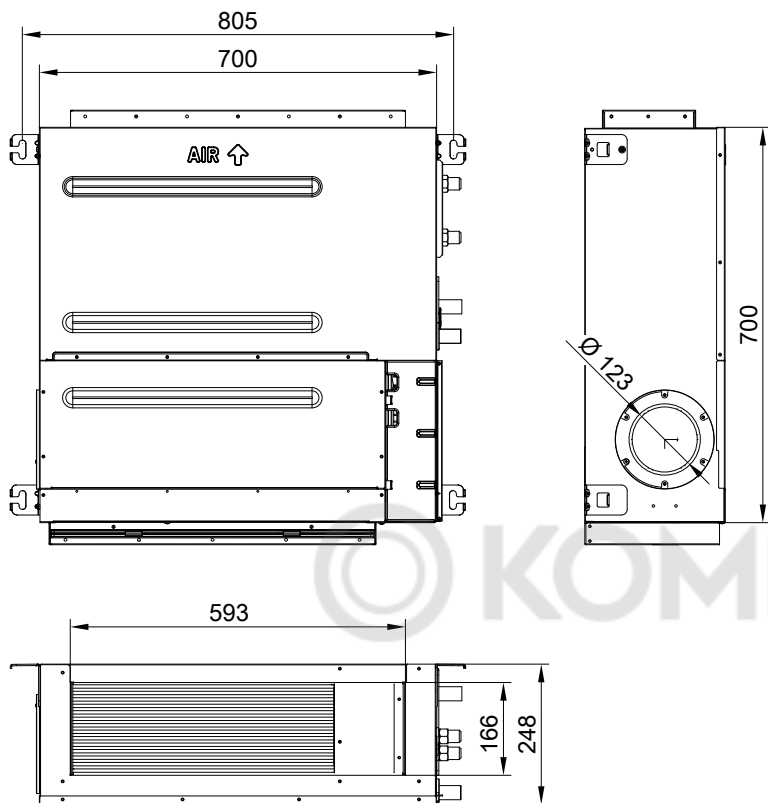
Type IDMAA200MHA035

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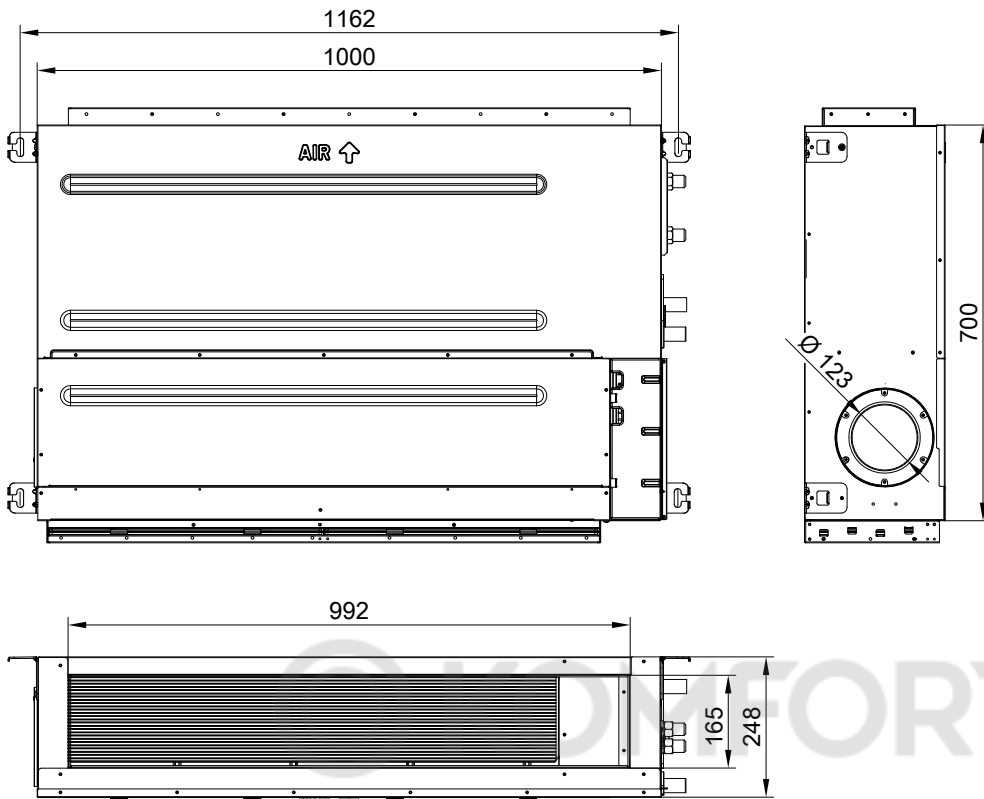
Type IDMAA200MHA050 and type IDMAA200MHA071

5.10 Performance graphs

Performance graphs, type OFAA200MHA050

Cooling capacity

Outside temperature (relative humidity 46 %)

Heating output

Outside temperature (DB/WB) in °C

Supply air temperature (relative humidity 46 %)

Power consumption, cooling

Room temperature (DB/WB) in °C

Outside temperature

Vitoclima 200-S, multi split air conditioning unit (cont.)
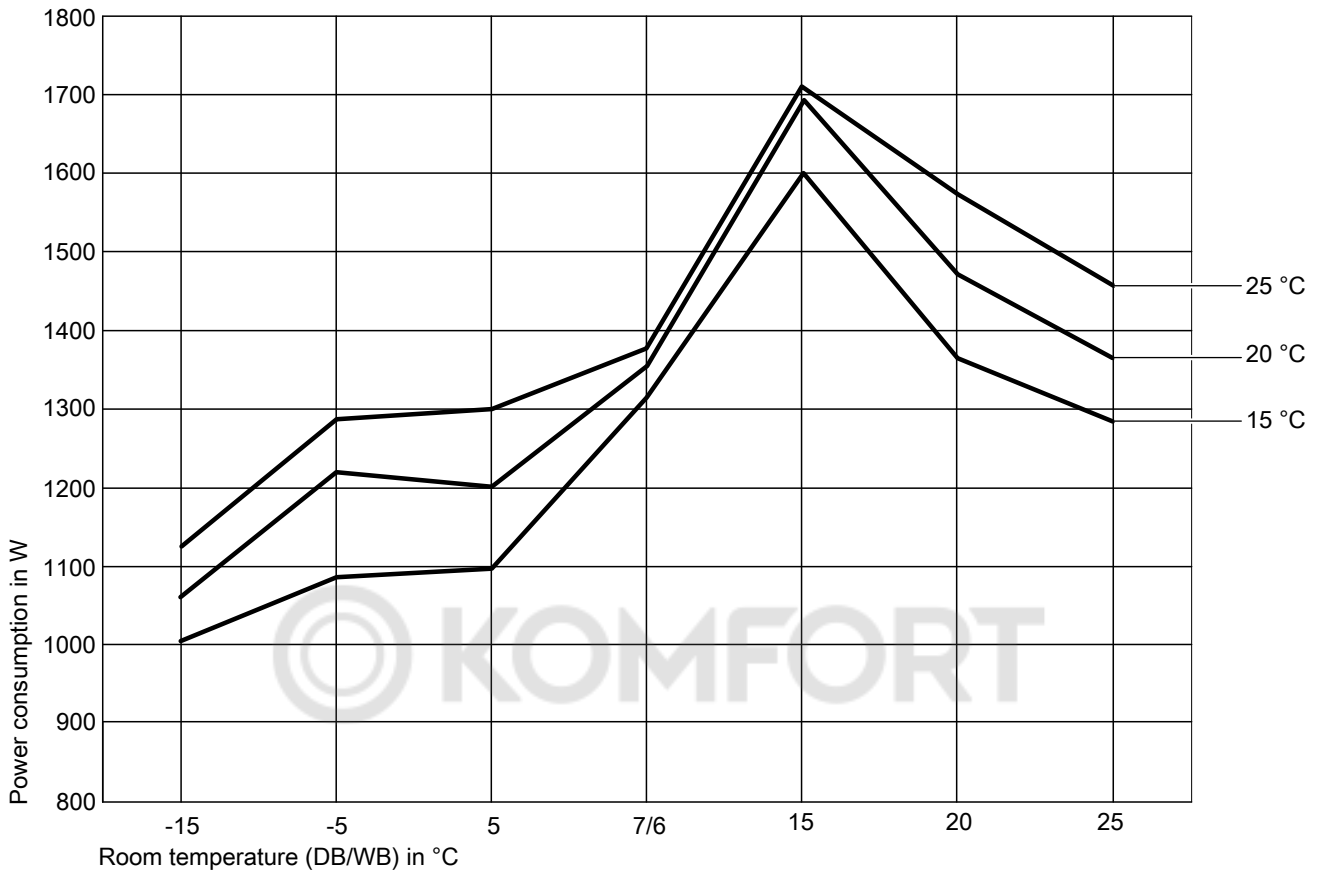
Power consumption, heating

Power consumption in W (y-axis, 800 to 1800)

Room temperature (DB/WB) in °C (x-axis: -15, -5, 5, 7/6, 15, 20, 25)

Curves labelled: 25 °C, 20 °C, 15 °C

Outside temperature (relative humidity 46 %)

Performance graphs, type OFAA200MHA070

Cooling capacity

Cooling capacity (W) (y-axis, 0 to 12000)

Outside temperature in (DB/WB) °C (x-axis: 15/12, 20/15, 25/18, 30/22, 35/24, 38/25, 40/26, 43/26)

Curves labelled: 30 °C, 27 °C, 22 °C, 20 °C

5
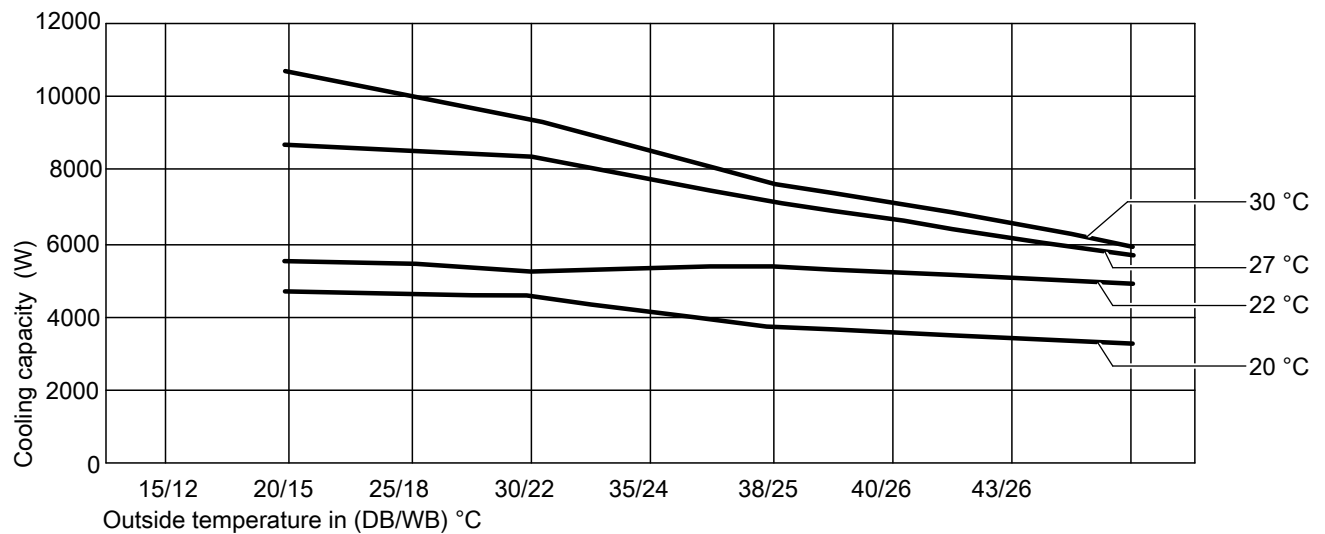
Vitoclima 200-S, multi split air conditioning unit (cont.)

Heating output
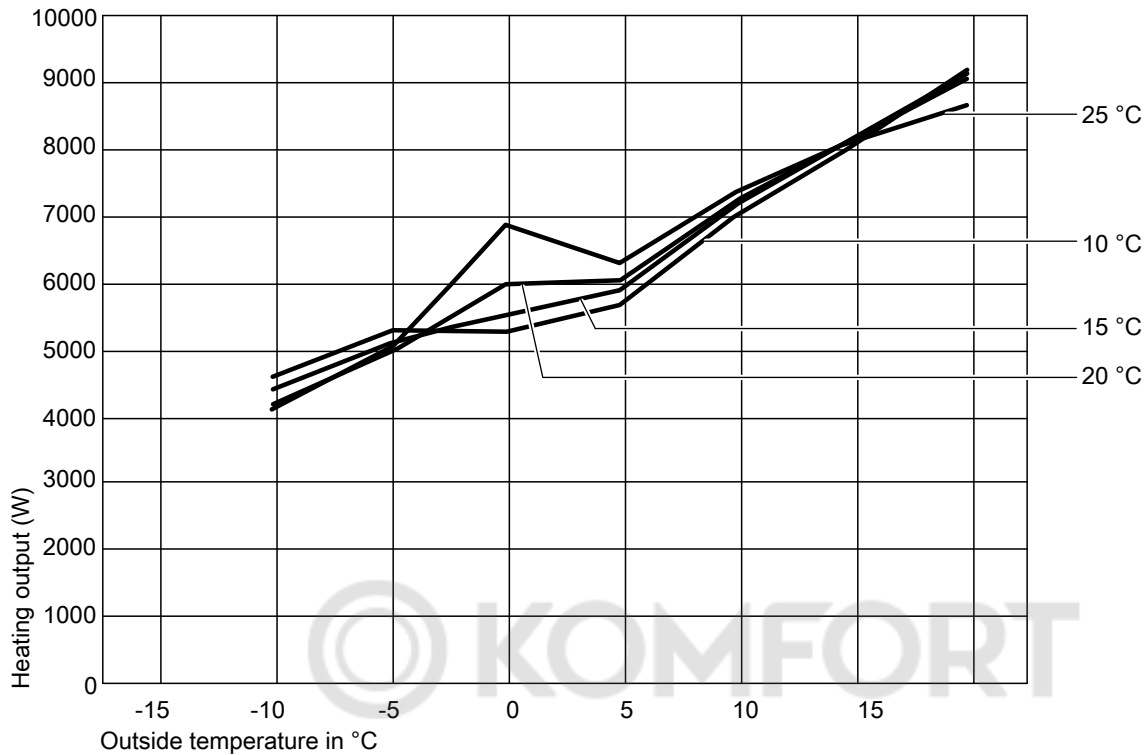
Performance graphs, type OFAA200MHA085

Cooling capacity

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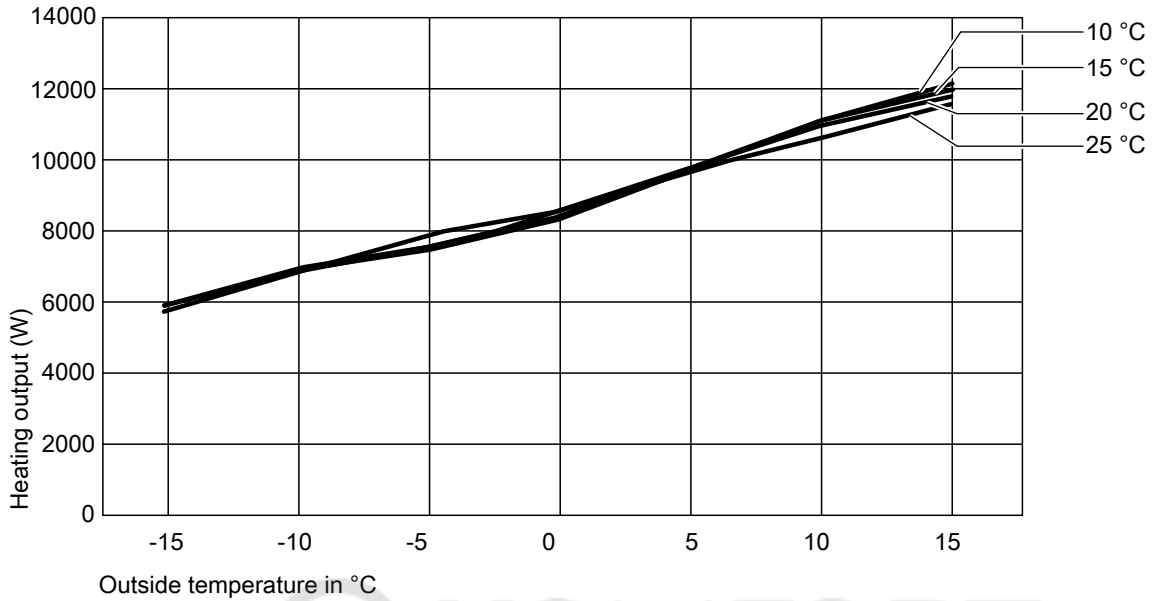
Heating output

Performance graphs, type OFAA200MHA105

Cooling capacity

Heating output

Chart showing Heating output (W) versus Outside temperature in °C. Y-axis "Heating output (W)" from 0 to 14000. X-axis "Outside temperature in °C" from -15 to 15. Curves labelled 10 °C, 15 °C, 20 °C, 25 °C.

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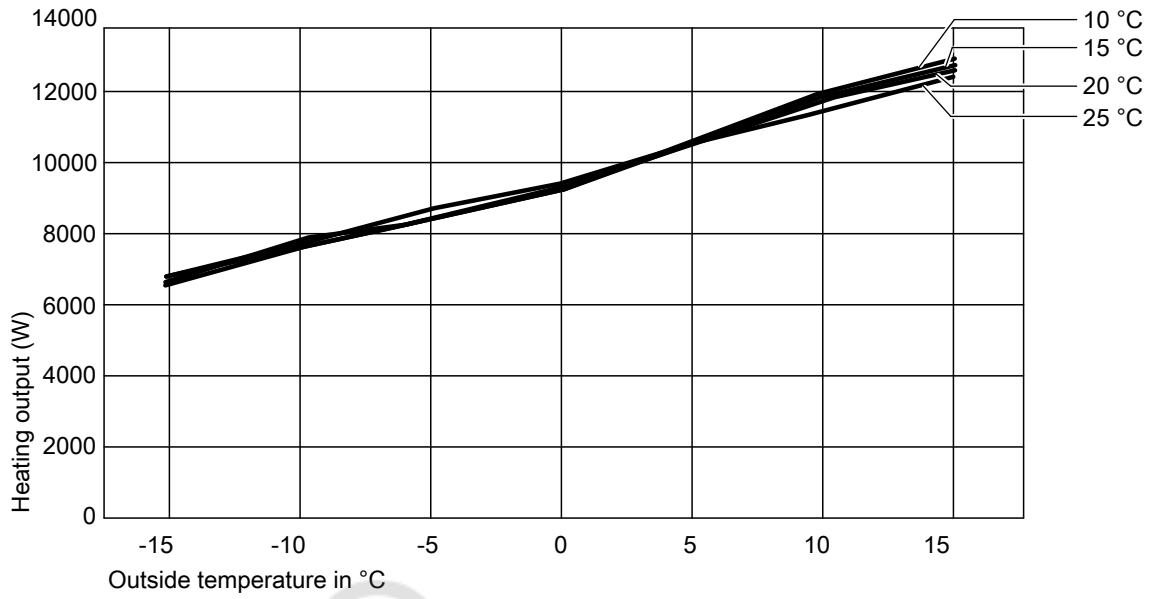
VITOCLIMA

Accessories

6.1 Filter

Vitoclima Bio Sterilisation filter

Part no. 7970753
- For passive filtering of the indoor air
- For Vitoclima 100-S and 200-S wall mounted indoor units
- Filters and reduces bacteria, viruses and air pollution.

Vitoclima fine dust filter

Part no. 7970755
- For passive filtering of the indoor air
- For Vitoclima 100-S and 200-S wall mounted indoor units
- Filters and reduces air pollution and fine dust.

6.2 Refrigerant lines

Refrigerant lines for connecting permanently installed split units

Copper pipe with thermal insulation

- Single pipe in SF copper (EN 12735-1) for flanged or solder fittings
- Colour of thermal insulation: White
- 25 m coil

Part no.	Ø	Usage
7249274	6 x 1 mm	Liquid line
7249273	10 x 1 mm	Liquid line
7249272	12 x 1 mm	Hot gas line

Copper pipe with thermal insulation, twin pipe

- Twin pipe in SF copper (EN 12735-1) for flanged or solder fittings
- Colour of thermal insulation: White
- 20 m coil

Part no.	Ø
7249271	6 x 1 mm and 10 x 1 mm
7249270	6 x 1 mm and 12 x 1 mm

Thermal insulating tape

Part no. 7249275

To cover uninsulated components and connecting elements
- 10 m roll, 50 x 3 mm
- Self-adhesive
- Colour: White

PVC adhesive tape

Part no. 7249281
- 50 mm wide
- Colour: White

6.3 Connecting elements

Connectors

For joining copper pipes without soldering
- 2 flanged union nuts are required for each connector.
- 10 pce

Part no.	UNF thread	For copper pipe Ø	Usage
7249276	$\frac{7}{16}$	6 x 1 mm	Liquid line
7249278	$\frac{5}{8}$	10 x 1 mm	
7249279	$\frac{3}{4}$	12 x 1 mm	Hot gas line

Flanged union nuts

For joining copper pipes with connectors without soldering
- 2 flanged union nuts are required for each connector.
- 10 pce

Part no.	UNF thread	For copper pipe ∅	Usage
7249 280	$^7/_{16}$	6 x 1 mm and 1/4 x 0.8 mm	Liquid line
7249 282	$^5/_8$	10 x 1 mm and 3/8 x 0.8 mm	
7249 283	$^3/_4$	12 x 1 mm and 1/2 x 0.8 mm	Hot gas line

Euro flanged adaptors

Connection piece (solder connection), copper pipe to the flanged connection on the appliance
■ 10 pce

Part no.	UNF thread	For copper pipe ∅	Usage
7249284	$^7/_{16}$	6 x 1 mm and 1/4 x 0.8 mm	Liquid line
7249285	$^5/_8$	10 x 1 mm and 3/8 x 0.8 mm.	
7249286	$^3/_4$	12 x 1 mm and 1/2 x 0.8 mm	Hot gas line

Copper seal ring

Replacement seal rings for Euro flanged adaptors
■ 10 pce

Part no.	UNF thread	For copper pipe ∅	Usage
7249289	$^7/_{16}$	6 x 1 mm	Liquid line
7249290	$^5/_8$	10 x 1 mm	
7249291	$^3/_4$	12 x 1 mm	Hot gas line

Female solder connections

For connecting copper pipes
■ 10 pce

Part no.	For copper pipe ∅	Usage
7249287	6 mm	Liquid line
7249277	10 mm	
7249288	12 mm	Hot gas line

Copper sealing cap

For sealing unused connections
■ Can only be used in conjunction with the corresponding flanged union nut
■ 10 pce

Part no.	UNF thread
7249292	$^7/_{16}$
7249293	$^5/_8$
7249294	$^3/_4$

6.4 Condensate drain pipe

Condensate pump

Part no. 7249295
Condensate pump
8 m pump head, with surface mounted duct (white)

Part no. 7249298
Condensate pump for installation in a flush mounted duct.
6 m head

Non-return valve

Part no. 7975800
For condensate drain

To prevent the return of condensate at high delivery heads

Condensate hose

Part no. 7249302
For condensate drainage

■ For indoor unit
■ ∅ 16 mm
■ Roll with 30 m

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Flush mounted installation box

Part no. 7249303
For condensate pump, condensate hose, power cables etc.

6.5 Brackets for outdoor unit

Anti-vibration base

Part no. ZK06012
Anti-vibration base for mounting the outdoor unit on a solid surface
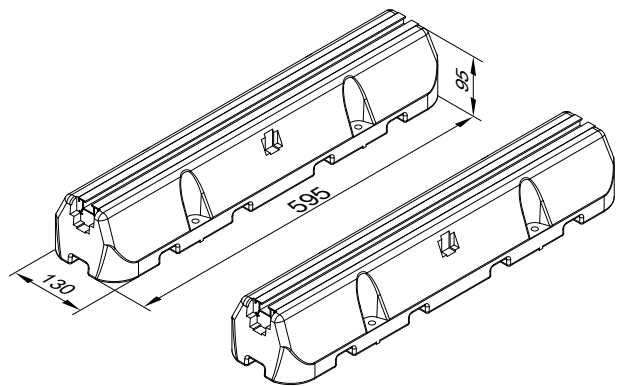
Bracket for floorstanding installation of outdoor unit

■ Made of aluminium profiles, height 300 mm, length 630 mm
■ For positioning on level ground
■ 2 pce
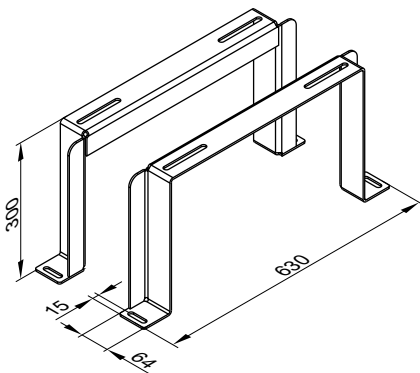
Part no. 7441142
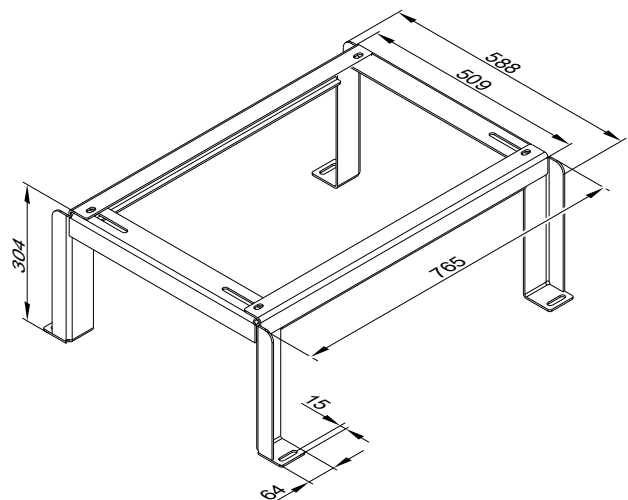
Part no. 7454125

Bracket set for wall mounting of outdoor unit

Part no. 7249301
■ Projection 560 mm
■ Max. load 100 kg

■ Wall rail and adjustable brackets with end caps, zinc-plated
■ 4 anti-vibration mounts 42 x 10.5 mm.

6.6 Detergent

Special cleaner

1 litre spray bottle

Part no.	
7249304	For cleaning the condenser
7249305	For cleaning the evaporator

7.1 Engineering steps

Product selection

Products are selected according to the following criteria
■ Required cooling capacity and, where applicable, heating output
■ Required air conditioning unit functions
■ In multi split systems, the selection of outdoor unit also depends on the number of indoor units required.
■ Installation location

For selecting a ventilation unit according to functions, see table "Overview of equipment features" from page onwards

Note
To ensure that the air conditioning system is engineered correctly, observe the design information. E.g. siting/installation requirements, line routing, calculation of cooling load.

With the aid of the "Engineering checklist", it is possible to check whether the relevant points have been taken into consideration. See Appendix on page 84.

7.2 Siting the outdoor unit

The units are suitable for outdoor installation and have a coating that offers a high level of corrosion protection.

Installation location
■ Freestanding on the ground or on a flat roof, on a substructure (on site) of at least 100 mm in height for connecting the condensate pipe
■ With on-site wall mounting bracket on an external wall. The walls must be able to absorb the vibrations and meet static requirements.

■ When using the appliance for heating, never direct the air discharge onto footpaths or rainwater downpipes.
■ No windows or doors in the immediate vicinity
■ Do not site in areas that come into contact with salt water or, for example, aerosols containing salt or chlorine.

Siting conditions

■ The maximum line length and height differential between indoor and outdoor unit must not be exceeded. For relevant details, see Specification.
  For height differentials above 5 m, oil lift bends must be provided.
■ Easily accessible for maintenance work
■ Location with good air circulation
■ The appliance's air discharge should open in the prevailing wind direction; if necessary fit a screen.
■ No direct exposure to sunlight. If necessary attach a shade that will not adversely affect the air flow.

■ Consider the heat emitted by the unit when planning your weather-proofing measures or an enclosure.
■ Never install the appliance in recesses, in building corners or between 2 walls, as this would lead to an undesirable increase in the noise level. See chapter "Noise emissions" on page 5 onwards.
■ Few people passing by
■ In areas at risk from frost, allow for the use of a resistance heater (on-site provision) around the condensate pipe. This will guarantee the reliable draining of condensate during heating mode.
■ Incorporate the outdoor unit into the lightning protection system.

Minimum clearances
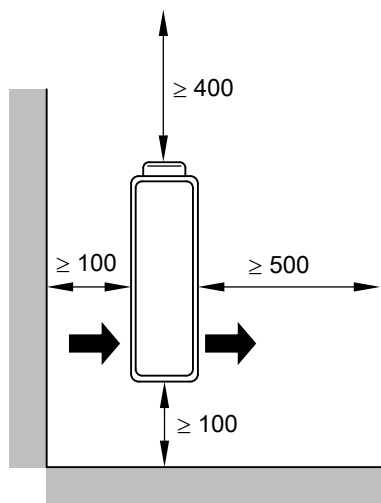
Plan view

Sound pressure level of the outdoor units

Vitoclima 300-S, type OFAA300MHA

Type OFAA300MHA026

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
61	2	53	47	41	39	37	35	33	31	29
	4	56	50	44	42	40	38	36	34	33
	8	59	53	47	45	43	41	39	37	36

Type OFAA300MHA035

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
62	2	54	48	42	40	38	36	34	32	30
	4	57	51	45	43	41	39	37	35	34
	8	60	54	48	46	44	42	40	38	37

Type OFAA300MHA052

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
63	2	55	49	43	41	39	37	35	33	31
	4	58	52	46	44	42	40	38	36	35
	8	61	55	49	47	45	43	41	39	38

Vitoclima 200-S, type OFAA200MHA

Type OFAA200MHA026

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
62	2	54	48	42	40	38	36	34	32	30
	4	57	51	45	43	41	39	37	35	34
	8	60	54	48	46	44	42	40	38	37

Type OFAA200MHA035

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
63	2	55	49	43	41	39	37	35	33	31
	4	58	52	46	44	42	40	38	36	35
	8	61	55	49	47	45	43	41	39	38

Type OFAA200MHA050

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
65	2	57	51	45	43	41	39	37	35	33
	4	60	54	48	46	44	42	40	38	37
	8	63	57	51	49	47	45	43	41	40

Type OFAA200MHA068

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
68	2	60	54	48	46	44	42	40	38	36
	4	63	57	51	49	47	45	43	41	40
	8	66	60	54	52	50	48	46	44	43

7

Vitoclima 200-S Multi, type OFAA200MHA

Type OFAA200MHA050

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
63	2	55	49	43	41	39	37	35	33	31
	4	58	52	46	44	42	40	38	36	35
	8	61	55	49	47	45	43	41	39	38

Type OFAA200MHA070

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
66	2	58	52	46	44	42	40	38	36	34
	4	61	55	49	47	45	43	41	39	38
	8	64	58	52	50	48	46	44	42	41

Type OFAA200MHA085

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
68	2	60	54	48	46	44	42	40	38	36
	4	63	57	51	49	47	45	43	41	40
	8	66	60	54	52	50	48	46	44	43

Type OFAA200MHA105

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
70	2	62	56	50	48	46	44	42	40	38
	4	65	59	53	51	49	47	45	43	42
	8	68	62	56	54	52	50	48	46	45

Vitoclima 100-S, type OFAA100MHA

Type OFAA100MHA026

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
62	2	54	48	42	40	38	36	34	32	30
	4	57	51	45	43	41	39	37	35	34
	8	60	54	48	46	44	42	40	38	37

Type OFAA100MHA032

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
63	2	55	49	43	41	39	37	35	33	31
	4	58	52	46	44	42	40	38	36	35
	8	61	55	49	47	45	43	41	39	38

Type OFAA100MHA050

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
65	2	57	51	45	43	41	39	37	35	33
	4	60	54	48	46	44	42	40	38	37
	8	63	57	51	49	47	45	43	41	40

Type OFAA100MHA050, OFAA100MHA070

Sound power level LW in dB(A)	Directivity Q	Clearance in m								
		1	2	4	5	6	8	10	12	15
		Sound pressure level Lp in dB(A) *1								
65	2	57	51	45	43	41	39	37	35	33
	4	60	54	48	46	44	42	40	38	37
	8	63	57	51	49	47	45	43	41	40

7

7.3 Siting the indoor unit

Installation room requirements

Structural requirements
- Facilities for electrical connection must be available.
- Walls/ceilings must be structurally suitable for the installation.

Safety guidelines
When using products containing refrigerant R32, additional measures must be taken into account for the engineering and installation. To ensure the safety of persons inside buildings, the guidelines set out in IEC/EN 60335-2-40 and EN 378 must be taken into consideration and observed. System components installed outdoors must be arranged in such a way that refrigerant cannot leak into the building or endanger persons or property in any other way. Therefore avoid installation in the vicinity of ventilation openings for outdoor air, door openings, trapdoors or other similar openings.

Siting in areas occupied by people
This classification applies whenever refrigerant-carrying system parts are located in an area bound by walls, floors or ceilings which is occupied by people for extended periods of time. The general conditions are set out in IEC 60335 Section GG.

Defining the safety zone
The safety measures required when installing refrigerant-carrying components in areas occupied by people are primarily based on the ratio of the refrigerant charge to the volume of the smallest affected room. Observe the maximum room area and maximum room height. Even if the room has larger dimensions, a maximum area of 250 m^2 and a height of 2.2 m must not be exceeded when calculating the volume. The minimum area is 3 m^2.

Natural ventilation
If the floor area of the adjacent room is to be used, 2 openings (one at the bottom, one at the top) must be provided between the rooms. This ensures natural ventilation/air circulation. To ensure that the maximum refrigerant concentration is observed in the event of a leak, the interconnected room air supply to a 2nd room must have a sufficient volume. The openings must comply with the defined conditions.

Checking the siting conditions
Example: Multi split air conditioning unit with an output of 10.5 kW (largest output, maximum refrigerant charge possible):
- Ex-factory refrigerant charge: 2.4 kg
- Top-up charge 20 g/m for maximum additional line length of 40 m = max. additional 0.8 kg
- Maximum refrigerant charge: 3.2 kg. As the value is under 15.96 kg, no special requirements are stipulated.
- Calculation/definition of the minimum room area (free, unobstructed, to comply with room volume) in accordance with the following formula:

$m^2_{max.} = 2.5 \times (0.37 \ kg/m^3)^{5/4} \times h0 \times A^{1/2}$

(h0 = Installed height of indoor unit in m)

Minimum room size as a function of refrigerant charge (refrigerant R32) and installed height (h0) of indoor unit

h0	Refrigerant charge, R32 in kg													
	1.9*1	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2
0.6	31	34	38	42	45	49	54	58	63	67	72	77	82	88
0.7	23	25	28	31	33	36	39	43	46	49	53	57	61	65
0.8	17	19	21	23	26	28	30	33	35	38	41	43	46	49
0.9	14	15	17	18	20	22	24	26	28	30	32	34	37	39
1.0	11	12	14	15	16	18	19	21	23	24	26	28	30	32
1.1	9	10	11	12	14	15	16	17	19	20	21	23	25	26
1.2	8	9	9	10	11	12	13	15	16	17	18	19	21	22
1.3	7	7	8	9	10	11	11	12	13	14	15	16	18	19
1.4	6	6	7	8	8	9	10	11	11	12	13	14	15	16
1.5	6	6	6	7	7	8	9	9	10	11	12	12	13	14
1.6	5	5	6	6	6	7	8	8	9	9	10	11	12	12
1.7	5	5	5	6	6	6	7	7	8	8	9	10	10	11
1.8	5	5	5	5	6	6	6	6	7	7	8	9	9	10
1.9	4	5	5	5	5	6	6	6	6	7	7	8	8	9
2.0	4	4	5	5	5	5	5	6	6	6	6	7	7	8
2.1	4	4	4	5	5	5	5	5	6	6	6	6	7	7
2.2	4	4	4	4	5	5	5	5	5	6	6	6	6	7
2.3	4	4	4	4	4	5	5	5	5	5	5	6	6	6
2.4	3	4	4	4	4	4	5	5	5	5	5	5	6	6
2.5	3	3	4	4	4	4	4	5	5	5	5	5	5	6

Notes on room size
If the area is not large enough, additional measures are required.

Possible measures
- *Vary installed height.*
- *If necessary use a different indoor unit.*
- *Set up interconnected room air supply with adjacent room.*
- *Install refrigerant detectors that shut down the system.*
- *Provide on-site forced ventilation (fans, air extraction to the outside).*

*1 *<1.85 kg: No requirements*

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Design information (cont.)

Siting the indoor unit as a wall mounted appliance

- Siting conditions
- In the upper area of the wall, so that the conditioned air can flow freely through the room, at approx. ¾ of the room height.
- Air intake and air discharge openings must be kept free (not behind furniture or fixtures).
- Away from heat sources
- Protect the device from exposure to sunlight and humidity.
- Easily accessible for maintenance work
- So that the user can stay comfortably in the reverse flow.

Minimum clearances for indoor unit as wall mounted appliance, type IWAA300/200MHA
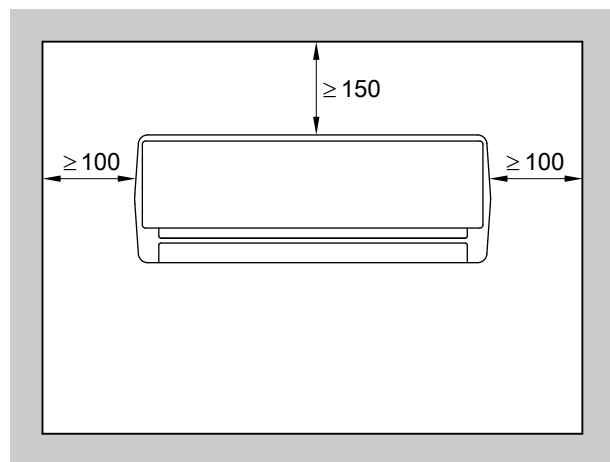
Front view

Installing the indoor unit, duct mounting

Installation requirements
- If possible, centrally in a suspended ceiling, so that the conditioned air is distributed to optimum advantage.
- Air intake and air discharge openings must be kept free (not above furniture or fixtures).
- Away from heat sources
- Protect the device from exposure to sunlight and humidity.
- Easily accessible for maintenance work

Minimum clearances for indoor unit, type IFCAA200MHA
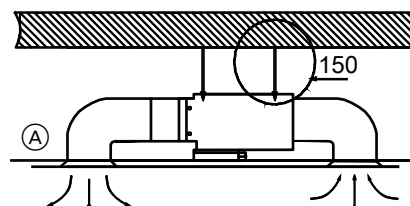
(A) Ceiling

Minimum clearances for indoor unit, type IDMAA200MHA
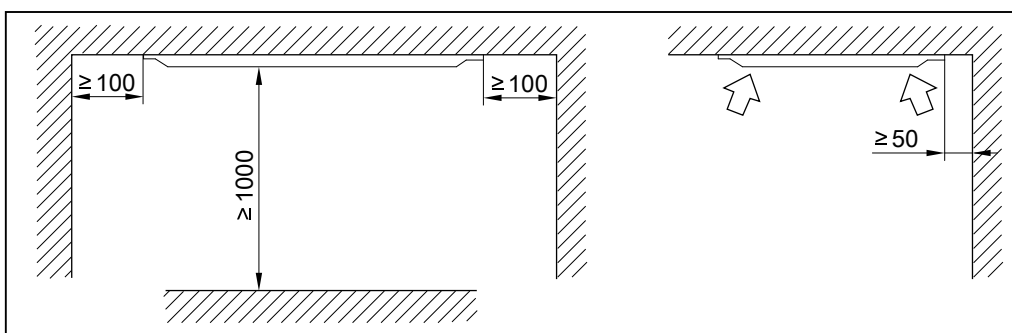
Installing the ceiling unit, ceiling cassette

Installation requirements
- Installed in a suspended ceiling or as a ceiling mounted unit (type IFCAA200MHA0) as centrally as possible so that the conditioned air is distributed to optimum advantage.
- Air intake and air discharge openings must be kept free (not above furniture or fixtures).
- Away from heat sources

- Protect the device from exposure to sunlight and humidity.
- Easily accessible for maintenance work

7

Design information (cont.)

Minimum clearances
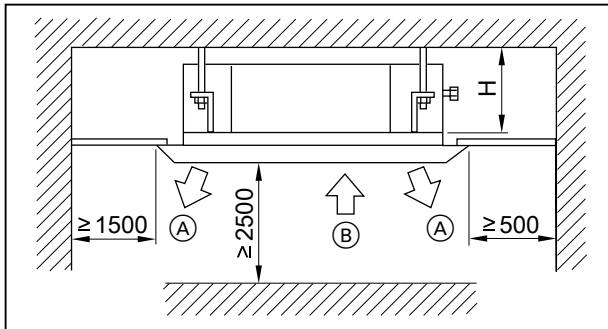
Type	IC4AA200MHA026 IC4AA200MHA035 IC4AA200MHA050	IC8AA200MHA071	
H in mm	260	204	

(A) Air diffuser
(B) Air inlet

Minimum clearances for indoor unit as ceiling unit
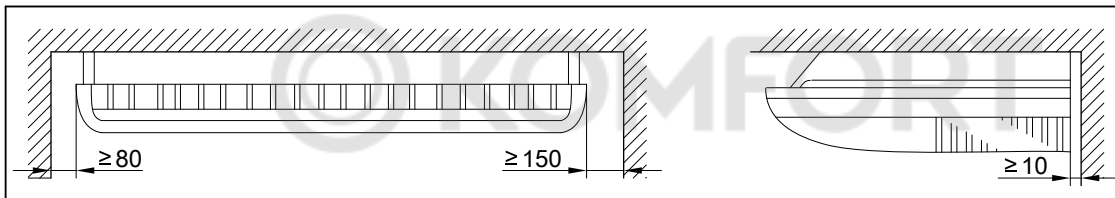
Ceiling mounting, type IFCAA200MHA
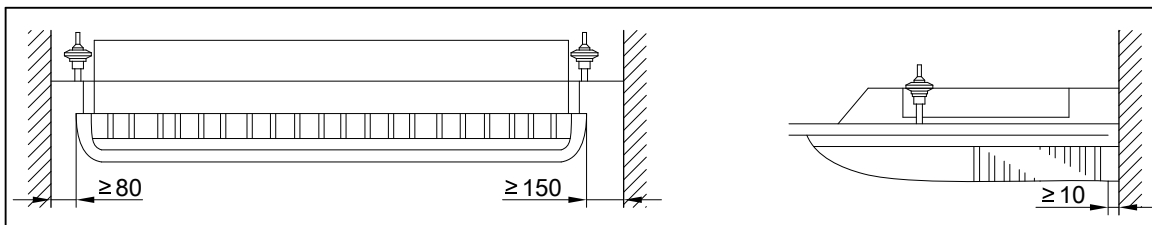
Part-concealed ceiling mounting, type IFCAA200MHA

7
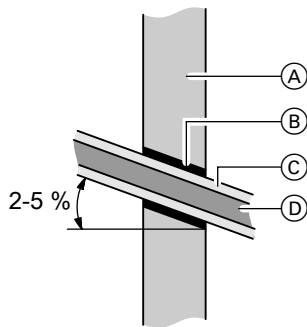
7.4 Wall outlet

The indoor and outdoor units are connected to each other via the refrigerant lines and the connecting cable. The condensate pipe must also be installed. Wall outlets are required for this purpose. With these wall outlets, it is necessary to consider load bearing sections, lintels, sealing elements (e.g. vapour barriers), etc.

Ⓐ Wall
Ⓑ E.g. PVC or PE conduit
Ⓒ Closed cell diffusion-proof thermal insulation
Ⓓ E.g. refrigerant lines

7.5 Installation of the condensate pipe

In cooling mode, condensate forms on the indoor unit's heat exchanger because the air temperature drops below the dew point. To allow condensate to drain freely, the condensate pipe must be installed with a fall. Connect condensate pipe to the drain network with a stench trap of min. height 50 mm.
Prevent air pockets. To ensure that the condensate can drain freely, fit an air vent valve to the condensate pipe if necessary.

Fit the condensate pipe with 5 to 10 mm thick thermal insulation with a B1 fire rating.
If the condensate has be to channelled into a downpipe at a higher level, a condensate pump will be required.
The following indoor units are already equipped with condensate lift pumps: Duct cassette with medium and low supply pressure, ceiling cassette

7.6 Installation of the refrigerant line

Legislation prescribes that split air conditioning units may only be installed and commissioned by certified persons with verified expertise in accordance with the applicable Chemikalien-Klimaschutzverordnung [German Chemicals Climate Protection Ordinance]. Certified Viessmann personnel can assist with the installation and commissioning on request.
The indoor unit contains a nitrogen blanket. The outdoor unit is precharged with refrigerant. The two units are connected via the suction and liquid lines using flange connections.

When designing the refrigerant connection lines, please note the following conditions:
■ Note the max. distance and height differential between the indoor and outdoor unit, see chapter "Specification" for the relevant appliance.
■ Connections should be as straight and short as possible
■ Only use copper pipes that are approved for R32 refrigerant. For nominal diameter, see chapter "Specification".
■ Suction and liquid line must have separate thermal insulation. Closed cell diffusion-proof thermal insulation, min. 6 mm thick.
■ Oil lift bends for single split systems where the outdoor unit has to be installed above or below the indoor unit. We recommend installing oil lift bends in the vertical suction line at intervals of approx. 5 to 7 m. This will guarantee that the refrigerant oil is reliably conveyed back to the compressor.
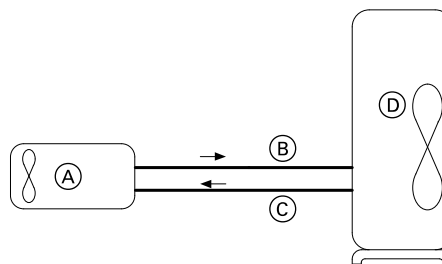
Indoor and outdoor unit at the same level

Ⓐ Indoor unit
Ⓑ Suction line
Ⓒ Liquid line
Ⓓ Outdoor unit

7
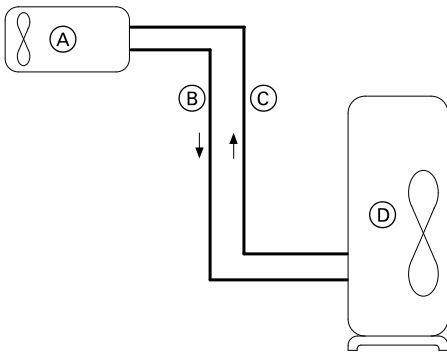
Indoor unit higher than outdoor unit

Ⓐ Indoor unit
Ⓑ Suction line
Ⓒ Liquid line
Ⓓ Outdoor unit
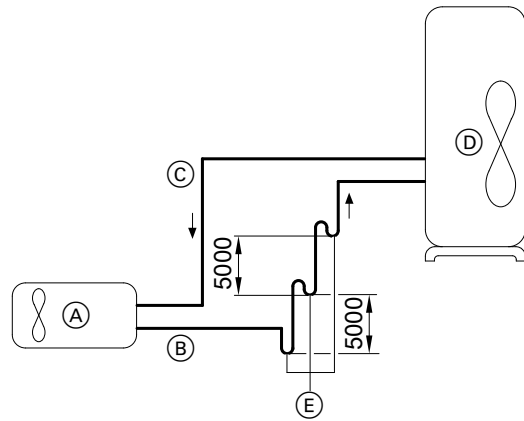
Outdoor unit higher than indoor unit

Ⓐ Indoor unit
Ⓑ Suction line
Ⓒ Liquid line
Ⓓ Outdoor unit
Ⓔ Oil lift bends

Output correction factor

Correction factors for different connecting line lengths and connecting line height differences between the indoor and outdoor units

Vitoclima 200-S, type OFAA200MHA050

Cooling		Line length, refrigerant lines (in m)				
		5	10	15	20	30
Height differential between indoor and outdoor unit	15 m				0.943	0.915
	10 m			0.981	0.958	0.930
	7.5 m		0.987	0.985	0.962	0.934
	5 m	1.000	0.991	0.989	0.966	0.937
	0 m	1.008	0.999	0.997	0.974	0.945
	−5 m	1.008	0.999	0.997	0.974	0.945
	−7.5 m		0.998	0.997	0.972	0.943
	−10 m			0.996	0.971	0.943
	−15 m				0.971	0.941

Vitoclima 200-S, type OFAA200MHA050

Heating		Line length, refrigerant lines (in m)				
		5	10	15	20	30
Height differential between indoor and outdoor unit	15 m				0.943	0.918
	10 m			0.981	0.958	0.933
	7.5 m		0.990	0.985	0.962	0.937
	5 m	1.006	0.994	0.988	0.966	0.940
	0 m	1.011	0.999	0.997	0.974	0.947
	−5 m	1.010	0.998	0.997	0.976	0.948
	−7.5 m		0.998	0.995	0.974	0.947
	−10 m			0.993	0.972	0.945
	−15 m				0.972	0.942

Vitoclima 200-S, type OFAA200MHA070

Cooling		Line length, refrigerant lines (in m)							
		5	10	15	20	30	40	50	60
Height differential between indoor and outdoor unit	15 m				0.941	0.918	0.894	0.871	0.792
	10 m			0.980	0.956	0.933	0.909	0.886	0.792
	7.5 m		0.990	0.984	0.960	0.937	0.913	0.889	0.792
	5 m	1.000	0.994	0.988	0.964	0.940	0.917	0.893	0.792
	0 m	1.008	1.002	0.996	0.972	0.948	0.924	0.900	0.792
	−5 m	1.008	1.002	0.996	0.972	0.948	0.924	0.900	0.787
	−7.5 m		1.002	0.996	0.972	0.948	0.924	0.900	0.785
	−10 m			0.996	0.972	0.948	0.924	0.900	0.783
	−15 m				0.972	0.948	0.924	0.900	0.773

Design information (cont.)

Vitoclima 200-S, type OFAA200MHA070

Heating		Line length, refrigerant lines (in m)							
		5	**10**	**15**	**20**	**30**	**40**	**50**	**60**
Height differential between indoor and outdoor unit	15 m				0.968	0.957	0.947	0.947	0.792
	10 m			0.978	0.968	0.957	0.947	0.947	0.792
	7.5 m		0.988	0.978	0.968	0.957	0.947	0.947	0.792
	5 m	1.005	0.988	0.978	0.968	0.957	0.947	0.947	0.792
	0 m	1.003	0.988	0.978	0.968	0.957	0.947	0.947	0.792
	−5 m	0.998	0.988	0.978	0.968	0.957	0.947	0.942	0.787
	−7.5 m		0.983	0.973	0.963	0.952	0.942	0.940	0.785
	−10 m			0.971	0.961	0.950	0.940	0.937	0.783
	−15 m				0.969	0.947	0.937	0.928	0.773

Vitoclima 200-S, type OFAA200MHA085

Cooling		Line length, refrigerant lines (in m)								
		5	**10**	**15**	**20**	**30**	**40**	**50**	**60**	**70**
Height differential between indoor and outdoor unit	15 m				0.941	0.918	0.894	0.871	0.792	0.736
	10 m			0.980	0.956	0.933	0.909	0.886	0.792	0.736
	7.5 m		0.990	0.984	0.960	0.937	0.913	0.889	0.792	0.736
	5 m	1.000	0.994	0.988	0.964	0.940	0.917	0.893	0.792	0.736
	0 m	1.008	1.002	0.996	0.972	0.948	0.924	0.900	0.792	0.736
	−5 m	1.008	1.002	0.996	0.972	0.948	0.924	0.900	0.787	0.731
	−7.5 m		1.002	0.996	0.972	0.948	0.924	0.900	0.785	0.729
	−10 m			0.996	0.972	0.948	0.924	0.900	0.783	0.727
	−15 m				0.972	0.948	0.924	0.900	0.773	0.717

Vitoclima 200-S, type OFAA200MHA085

Heating		Line length, refrigerant lines (in m)								
		5	**10**	**15**	**20**	**30**	**40**	**50**	**60**	**70**
Height differential between indoor and outdoor unit	15 m				0.968	0.957	0.947	0.947	0.792	0.736
	10 m			0.978	0.968	0.957	0.947	0.947	0.792	0.736
	7.5 m		0.988	0.978	0.968	0.957	0.947	0.947	0.792	0.736
	5 m	1.005	0.988	0.978	0.968	0.957	0.947	0.947	0.792	0.736
	0 m	1.003	0.988	0.978	0.968	0.957	0.947	0.947	0.792	0.736
	−5 m	0.998	0.988	0.978	0.968	0.957	0.947	0.942	0.787	0.731
	−7.5 m		0.983	0.973	0.963	0.952	0.942	0.940	0.785	0.729
	−10 m			0.971	0.961	0.950	0.940	0.937	0.783	0.727
	−15 m				0.969	0.947	0.937	0.928	0.773	0.717

Vitoclima 200-S, type OFAA200MHA105

Cooling		Line length, refrigerant lines (in m)									
		5	**10**	**15**	**20**	**30**	**40**	**50**	**60**	**70**	**80**
Height differential between indoor and outdoor unit	15 m				0.941	0.918	0.894	0.871	0.792	0.736	0.700
	10 m			0.980	0.956	0.933	0.909	0.886	0.792	0.736	0.700
	7.5 m		0.990	0.984	0.960	0.937	0.913	0.889	0.792	0.736	0.700
	5 m	1.000	0.994	0.988	0.964	0.940	0.917	0.893	0.792	0.736	0.700
	0 m	1.008	1.002	0.996	0.972	0.948	0.924	0.900	0.792	0.736	0.700
	−5 m	1.008	1.002	0.996	0.972	0.948	0.924	0.900	0.787	0.731	0.700
	−7.5 m		1.002	0.996	0.972	0.948	0.924	0.900	0.785	0.729	0.700
	−10 m			0.996	0.972	0.948	0.924	0.900	0.783	0.727	0.695
	−15 m				0.972	0.948	0.924	0.900	0.773	0.717	0.688

Vitoclima 200-S, type OFAA200MHA105

Heating		Line length, refrigerant lines (in m)									
		5	**10**	**15**	**20**	**30**	**40**	**50**	**60**	**70**	**80**
Height differential between indoor and outdoor unit	15 m				0.968	0.957	0.947	0.947	0.792	0.736	0.700
	10 m			0.978	0.968	0.957	0.947	0.947	0.792	0.736	0.700
	7.5 m		0.988	0.978	0.968	0.957	0.947	0.947	0.792	0.736	0.700
	5 m	1.005	0.988	0.978	0.968	0.957	0.947	0.947	0.792	0.736	0.700
	0 m	1.003	0.988	0.978	0.968	0.957	0.947	0.947	0.792	0.736	0.700
	−5 m	0.998	0.988	0.978	0.968	0.957	0.947	0.942	0.787	0.731	0.700
	−7.5 m		0.983	0.973	0.963	0.952	0.942	0.940	0.785	0.729	0.700
	−10 m			0.971	0.961	0.950	0.940	0.937	0.783	0.727	0.695
	−15 m				0.969	0.947	0.937	0.928	0.773	0.717	0.688

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7.7 Intended use

The appliances are only intended to be installed and operated in split air conditioning systems, with due attention paid to the associated technical documents. They are intended exclusively for operation in typical domestic applications, e.g. for cooling and heating rooms.

Intended use presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

Commercial or industrial use for a purpose other than room cooling, room heating and room dehumidification (e.g. for continuous cooling of server rooms or other processes that require disproportionate run-times) shall be deemed inappropriate use.

Any usage beyond this must be approved by the manufacturer in each individual case.

Incorrect use or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and will result in an exclusion of liability. Incorrect usage also occurs if the components in the split air conditioning system are modified from their intended function.

Calculating the cooling load

Just as the heat load is calculated according to EN 12831, there is also a basis for calculating the cooling load in accordance with VDI 2078. This complex and laborious procedure is performed using IT programs. Such a program is available as a module for Vitodesk 200.

VDI 2078 provides empirical values and an abridged method for sizing air conditioning units.
This method can be used for estimating the size when preparing a quotation.

8.1 Calculating the cooling load through empirical values

For approximate on-site sizing, the following standard values can be selected for central Europe:

Rooms in residential buildings: 30 to 40 W/m^3
Offices: 50 W/m^3
Showrooms: 50 to 60 W/m^3
Glass structures: Up to 200 W/m^3

Note
A detailed calculation of the cooling load is always required.
To calculate the cooling load, we recommend the cooling load calculator on the PartnerPortal at
https://webstorage.viessmann.com/DE/kuehllastrechner/index.html

8.2 Calculating the cooling load using the abridged HEA process based on VDI 2078

This method is used for precision sizing of an air conditioning unit. On larger buildings with a high proportion of window areas, the calculation must be performed using the detailed method in accordance with VDI 2078.
The short method may be applied in the following circumstances:
■ Constant indoor air temperature
■ Periodic internal and external load

■ 24 hour system operation
■ Constant protection from the sun
■ Allowance for accumulation effects in cooling load factors

Estimating the cooling load for single rooms without external air supply based on VDI 2078

1.	Project details		Room data	
	Name		Room no.	
			Length	m
	Street		Width	m
			Surface area	m²
	Town		Height	m
			Volume	m³

▶▶

8

2. Exposure to sunlight through windows and external doors

	Shell dimensions			Open			Reduction factor due to sun protection			Cooling load
	Width	Height	Surface area	Single glazing	Double glazing	Energy efficient glazing	Internal blinds, closed: ☐ Yes ☐ No	Awning, closed: ☐ Yes ☐ No	External blinds, closed: ☐ Yes ☐ No	
	m	m	m²	W/m²	W/m²	W/m²				W
N				65	60	35				
NO				80	70	40				
O				310	280	155				
SU				270	240	135	0.7*²	0.3*²	0.15*²	
S				350	300	165				
SW				310	280	155				
W				320	290	160				
DN				250	240	135				
Skylight				500	380	220				

Total cooling load, windows (observe point 2 on page 71)

3. Walls

	Width	Height	Surface area	Surface area excl. windows and doors	Specific cooling load	Cooling load
	m	m	m²	m²	W/m²	W
Interior walls adjoining non-air-conditioned rooms					10	
External walls					10	

Total cooling load, walls

4. Floor over non-air-conditioned rooms

	Length	Width	Surface area	Specific cooling load	Cooling load
	m	m	m²	W/m²	W
				10	

Total cooling load, floor

5. Ceiling, excl. skylights and roof lights already accounted for.

				Specific cooling load W/m²					Cooling load W
Length	Width	Surface area	Flat roof		Pitched roof		Non-air-conditioned room		
m	m	m²	non-insulated	insulated	non-insulated	insulated			
			60	30	50	25	10		

Total cooling load, ceiling

6. Electrical equipment and lighting

	Supply value W	Number of applications	Cooling load W
Electrical equipment (see table overleaf)			
Illumination			

Total cooling load, electrical equipment

7. People undertaking light physical activity

Heat emitted per person	115 W	Quantity	

Total cooling load, people

Overall total cooling load

To achieve an actual room air temperature that is approx. 5 K below the outside temperature, the appliance's max. cooling capacity must be equal to or greater than the calculated cooling load.

*2 *This factor applies only when closed.*

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Heat given off by various electrical appliances

Appliance	Output in W
Computer (personal)	200 to 500
Printer	20 to 30
Plotter	20 to 60
Terminal	60 to 90
Radio	40
Television	175
Parabolic heater, radiant heater, solarium and similar	1000

Precise details regarding the electrical outputs can be found on the type plate of the respective appliance.

Explanation of the table for calculating the cooling load

Point 2

The shell dimensions of the window areas should be multiplied by the corresponding values, depending on the type of glazing to be used. Use the highest calculated value when determining the total. Where windows face directly adjacent directions, e.g. W and SW, use the sum of these values.

Note

South facing windows receive approx. 5 times more heat irradiation than north-facing windows with the same glazing.

Where sun protection equipment is installed, the data should be multiplied by the relevant factor.

Point 3

Walls have a marginal effect on the cooling load. Flat rate values were taken as a basis for the walls in accordance with the current heat standard.

Point 4

Use the corresponding value if the room below is not air-conditioned.

Point 5

Multiply the ceiling area, excl. any roof lights or skylights, by the corresponding values.

Point 6

The relevant connected load is used for lighting and the use of electrical equipment. Only equipment that will be switched on during cooling operation needs to be included.

Point 7

In accordance with VDI 2078, little or no physical activity is assumed.

Example of an estimated cooling load

Single room with the following features:
- 2 external walls
- 2 interior walls
- 1 internal door
- 2 windows (facing south and east)
  with double glazing and internal blinds
- Rooms above and below are not air-conditioned

- Equipment level:
  - 1 television
  - 1 computer
  - 1 printer
  - 300 W lighting
- During the time in which the room is to be air-conditioned, there will usually be 3 people in the room simultaneously.
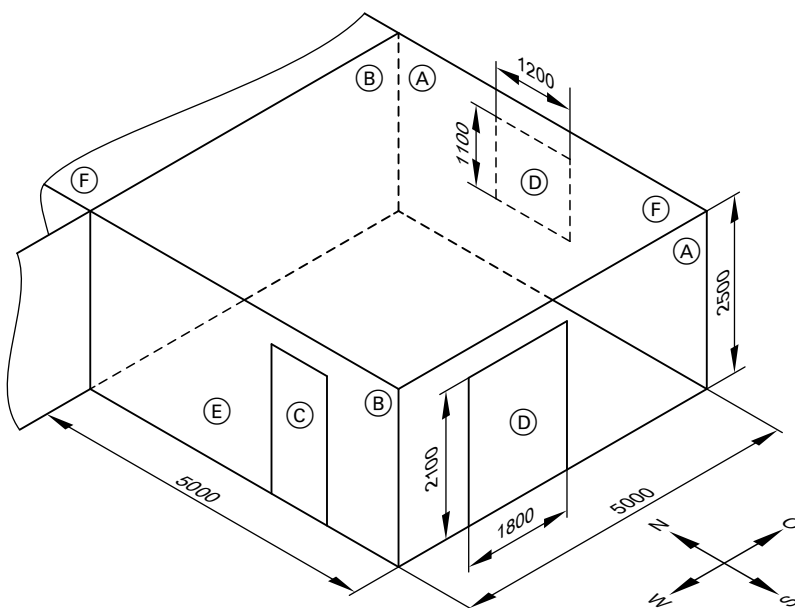
Ⓐ External wall	Ⓒ Internal door
Ⓑ Interior wall	

D Window and patio door
E Floor
F Ceiling

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1.	Project details								Room data		
	Name								Room no.		1
									Length		5 m
	Street								Width		5 m
									Surface area		25 m²
	Town								Height		2.5 m
									Volume		62.5 m³

2. Exposure to sunlight through windows and external doors

	Shell dimensions			Open			Reduction factor due to sun protection			
	Width	Height	Surface area	Single glazing	Double glazing	Energy efficient glazing	Internal blinds, closed: ☐ Yes ☐ No	Awning, closed: ☐ Yes ☐ No	External blinds, closed: ☐ Yes ☐ No	Cooling load
	m	m	m²	W/m²	W/m²	W/m²				W
N				65	60	35				
NO				80	70	40				
O	1.2	1.1	1.32	310	280	155				259
SU				270	240	135				
S	1.8	2.1	3.78	350	300	165	0.7*²	0.3*²	0.15*²	794
SW				310	280	155				
W				320	290	160				
DN				250	240	135				
Skylight				500	380	220				
				Total cooling load, windows (observe point 2 on page 71)						**794**

3. Walls

	Width	Height	Surface area	Surface area excl. windows and doors	Specific cooling load	Cooling load
	m	m	m²	m²	W/m²	W
Interior walls adjoining non-air-conditioned rooms	10	2.5	25		10	250
External walls	10	2.5	25	21.22	10	212
				Total cooling load, walls		**462**

4. Floor over non-air-conditioned rooms

	Length	Width	Surface area	Specific cooling load	Cooling load
	m	m	m²	W/m²	W
	5	5	25	10	250
			Total cooling load, floor		**250**

5. Ceiling, excl. skylights and roof lights already accounted for.

				Specific cooling load W/m²					Cooling load W
	Length	Width	Surface area	Flat roof		Pitched roof		Non-air-conditioned room	
	m	m	m²	non-insulated	insulated	non-insulated	insulated		
	5	5	25	60	30	50	25	10	250
				Total cooling load, ceiling					**250**

6. Electrical equipment and lighting

	Supply value	Number of applications	Cooling load
	W		W
Electrical appliances (data from table on page 71)	200/30/175	3	405
Illumination	300		300
	Total cooling load, electrical equipment		**705**

*² This factor applies only when closed.

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7.	People undertaking light physical activity		
Heat emitted per person		Quantity	Cooling load
	115 W	3	345
		Total cooling load, people	345

	Overall total cooling load in W	2806

Basis of calculation: Room temperature of 27 °C with an outside temperature of 32 °C and the air conditioning unit in constant operation

Design information for Vitoclima Multi Split

9.1 Performance data of different combinations

Performance data varies depending on the number of indoor units that are being combined.

Type OFAA200MHA050 with Vitoclima 300-S indoor units for wall mounting

Heating

Combination with 2 indoor units		Nominal output (kW)		System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
IDU 1	IDU 2	IDU 1	IDU 2	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	2.5	2.50	2.50	1.50	6.30	0.49	2.00	2.2	8.9	4.71	4.60	A++
2.5	3.5	2.40	2.60	1.50	6.30	0.49	2.00	2.2	8.9	4.71	4.60	A++
3.5	3.5	2.40	2.80	1.60	6.50	0.52	2.05	2.3	9.1	4.71	4.60	A++

Cooling

Combination with 2 indoor units		Nominal output (kW)		System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
IDU 1	IDU 2	IDU 1	IDU 2	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	2.5	2.20	2.20	1.30	5.60	0.35	2.07	1.6	9.2	4.50	8.50	A+++
2.5	3.5	2.10	2.30	1.30	5.60	0.35	2.07	1.6	9.2	4.50	8.50	A+++
3.5	3.5	2.30	2.30	1.30	5.70	0.35	2.08	1.6	9.2	4.50	8.50	A+++

Type OFAA200MHA050 with Vitoclima 200-S indoor units for wall mounting

Heating

Combination with 2 indoor units		Nominal output (kW)		System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
IDU 1	IDU 2	IDU 1	IDU 2	Min.	Max.	Min.	Max.	Min.	Max.			
2.2	2.2	2.40	2.40	1.30	5.70	0.49	1.90	2.2	8.6	3.71	4.00	A+
2.2	2.5	2.30	2.50	1.30	5.70	0.49	1.90	2.2	8.6	3.71	4.00	A+
2.0	3.5	2.40	2.60	1.40	5.80	0.52	1.90	2.3	8.6	3.71	4.00	A+
2.5	2.5	2.50	2.50	1.40	5.80	0.52	2.00	2.3	9.1	3.71	4.00	A+
2.5	3.5	2.40	2.60	1.50	5.90	0.53	2.00	2.4	9.1	3.71	4.00	A+
3.5	3.5	2.50	2.50	1.60	5.90	0.55	2.00	2.5	9.1	3.71	4.00	A+

Cooling

Combination with 2 indoor units		Nominal output (kW)		System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
IDU 1	IDU 2	IDU 1	IDU 2	Min.	Max.	Min.	Max.	Min.	Max.			
2.2	2.2	2.35	2.35	1.10	5.10	0.33	2.08	1.6	9.3	3.42	6.10	A++
2.2	25	2.10	2.60	1.10	5.10	0.33	2.08	1.6	9.3	3.42	6.10	A++
2.2	3.5	1.90	2.90	1.10	5.20	0.35	2.10	1.7	9.4	3.42	6.10	A++
2.5	2.5	2.40	2.40	1.10	5.20	0.35	2.10	1.6	9.4	3.42	6.10	A++
2.5	3.5	2.10	2.70	1.10	5.20	0.35	2.10	1.6	9.4	3.42	6.10	A++
3.5	3.5	2.40	2.40	1.10	5.40	0.35	2.10	1.6	9.4	3.42	6.10	A++

Type OFAA200MHA070

Heating

Combination with 2 or 3 indoor units (IDU)			Nominal output (kW)			System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
IDU 1	IDU 2	IDU 3	IDU 1	IDU 2	IDU 3	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0		2.30	2.30		2.60	8.00	0.55	2.00	2.44	8.43	3.68	3.80	A
2.0	2.5		2.30	3.60		2.70	8.50	0.55	2.00	2.44	8.43	3.69	3.80	A
2.0	3.5		2.30	4.50		2.70	8.50	0.55	2.10	2.44	8.86	3.74	3.80	A
2.0	4.2		0.00	0.00		2.90	8.50	0.55	2.10	2.44	8.86	0.00	3.90	A
2.0	5.0		0.00	0.00		2.90	8.50	0.55	2.10	2.44	8.86	0.00	3.90	A
2.5	2.5		3.60	3.60		2.90	8.50	0.55	2.10	2.44	8.86	3.60	3.90	A
2.5	3.5		0.00	0.00		2.90	8.50	0.55	2.10	2.44	8.86	0.00	3.90	A
2.5	4.2		0.00	0.00		2.90	8.50	0.55	2.10	2.44	8.86	0.00	3.95	A
2.5	5.0		0.00	0.00		2.90	8.50	0.55	2.10	2.44	8.86	0.00	3.95	A
3.5	3.5		3.75	3.75		2.90	8.50	0.55	2.20	2.44	9.28	3.75	4.00	A+
3.5	4.2		0.00	0.00		2.90	8.50	0.55	2.20	2.44	9.28	0.00	4.00	A+
3.5	5.0		0.00	0.00		2.90	8.50	0.55	2.20	2.44	9.28	0.00	4.10	A+
4.2	4.2		0.00	0.00		2.90	8.50	0.55	2.20	2.44	9.28	0.00	4.10	A+
2.0	2.0	2.0	2.30	2.30	2.30	2.90	8.50	0.55	2.30	2.44	9.70	3.73	4.20	A+
2.0	2.0	2.5	2.69	2.69	4.21	2.90	8.50	0.55	2.30	2.44	9.70	4.85	4.20	A+
2.0	2.0	3.5	2.43	2.43	4.75	2.90	8.50	0.55	2.30	2.44	9.70	4.90	4.20	A+
2.0	2.0	4.2	2.21	2.21	5.18	2.90	8.50	0.55	2.30	2.44	9.70	4.92	4.30	A+
2.0	2.0	5.0	2.08	2.08	5.43	2.90	8.50	0.55	2.30	2.44	9.70	4.92	4.30	A+
2.0	2.5	2.5	2.32	3.64	3.64	2.90	8.50	0.55	2.30	2.44	9.70	4.97	4.30	A+
2.0	2.5	3.5	2.12	3.32	4.15	2.90	8.50	0.55	2.30	2.44	9.70	4.92	4.40	A+
2.0	2.5	4.2	1.95	3.06	4.59	2.90	8.50	0.55	2.30	2.44	9.70	4.97	4.40	A+
2.0	2.5	5.0	1.86	2.90	4.84	2.90	8.50	0.55	2.30	2.44	9.70	4.95	4.40	A+
2.0	3.5	3.5	1.95	3.82	3.82	2.90	8.50	0.55	2.30	2.44	9.70	4.97	4.50	A+
2.0	3.5	4.2	1.81	3.54	4.25	2.90	8.50	0.55	2.30	2.44	9.70	5.00	4.50	A+
2.5	2.5	2.5	3.20	3.20	3.20	2.90	8.50	0.55	2.30	2.44	9.70	5.05	4.60	A++
2.5	2.5	3.5	2.95	2.95	3.69	2.90	8.50	0.55	2.30	2.44	9.70	5.05	4.60	A++
2.5	2.5	4.2	2.74	2.74	4.11	2.90	8.50	0.55	2.30	2.44	9.70	5.05	4.60	A++
2.5	3.5	3.5	2.74	3.43	3.43	2.90	8.50	0.55	2.30	2.44	9.70	5.05	4.60	A++

Cooling

Combination with 2 or 3 indoor units (IDU)			Nominal output (kW)			System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP class
IDU 1	IDU 2	IDU 3	IDU 1	IDU 2	IDU 3	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0		2.00	2.00		1.80	5.60	0.55	2.60	2.44	11.50	3.31	6.80	A++
2.0	2.5		2.00	2.60		1.80	6.70	0.55	2.60	2.44	11.50	3.41	6.80	A++
2.0	3.5		2.00	3.60		1.80	7.50	0.55	2.60	2.44	11.50	3.39	6.90	A++
2.0	4.2		2.00	4.40		1.80	7.60	0.55	2.60	2.44	11.50	3.39	6.90	A++
2.0	5.0		2.36	6.14		2.40	7.60	0.55	2.60	2.44	11.50	4.21	6.90	A++
2.5	2.5		2.60	2.60		2.00	7.40	0.55	2.60	2.44	11.50	3.42	6.90	A++
2.5	3.5		2.60	3.60		2.00	7.60	0.55	2.60	2.44	11.50	3.46	6.90	A++
2.5	4.2		3.16	5.34		2.40	7.60	0.55	2.60	2.44	11.50	4.21	7.00	A++
2.5	5.0		2.83	5.67		2.40	7.60	0.55	2.60	2.44	11.50	4.25	7.00	A++
3.5	3.5		3.40	3.40		2.40	7.60	0.55	2.60	2.44	11.50	3.40	7.00	A++
3.5	4.2		3.83	4.68		2.40	7.60	0.55	2.60	2.44	11.50	4.67	7.20	A++
3.5	5.0		3.48	5.02		2.40	7.60	0.55	2.60	2.44	11.50	4.67	7.40	A++
4.2	4.2		4.25	4.25		2.40	7.60	0.55	2.60	2.44	11.50	4.67	7.40	A++
2.0	2.0	2.0	2.00	2.00	2.00	2.40	7.60	0.55	2.60	2.44	11.50	3.43	7.60	A++
2.0	2.0	2.5	2.00	2.00	2.60	2.40	7.60	0.55	2.60	2.44	11.50	3.77	7.80	A++
2.0	2.0	3.5	2.24	2.24	4.03	2.40	7.60	0.55	2.60	2.44	11.50	4.72	7.80	A++
2.0	2.0	4.2	2.02	2.02	4.45	2.40	7.60	0.55	2.60	2.44	11.50	4.72	8.00	A++
2.0	2.0	5.0	1.85	1.85	4.80	2.40	7.60	0.55	2.60	2.44	11.50	4.72	8.00	A++
2.0	2.5	2.5	2.36	3.07	3.07	2.40	7.60	0.55	2.60	2.44	11.50	4.72	8.20	A++
2.0	2.5	3.5	2.07	2.70	3.73	2.40	7.60	0.55	2.60	2.44	11.50	4.72	8.20	A++
2.0	2.5	4.2	1.89	2.46	4.16	2.40	7.60	0.55	2.60	2.44	11.50	4.72	8.30	A++
2.0	2.5	5.0	1.73	2.26	4.51	2.40	7.60	0.55	2.60	2.44	11.50	4.67	8.30	A++
2.0	3.5	3.5	1.85	3.33	3.33	2.40	7.60	0.55	2.60	2.44	11.50	4.67	8.40	A++
2.0	3.5	4.2	1.70	3.06	3.74	2.40	7.60	0.55	2.60	2.44	11.50	4.72	8.40	A++
2.5	2.5	2.5	2.83	2.83	2.83	2.40	7.60	0.55	2.60	2.44	11.50	4.86	8.50	A+++
2.5	2.5	3.5	2.51	2.51	3.48	2.40	7.60	0.55	2.60	2.44	11.50	4.86	8.50	A+++

Vitoclima

6202775

Combination with 2 or 3 indoor units (IDU)			Nominal output (kW)			System output range, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP class
IDU 1	IDU 2	IDU 3	IDU 1	IDU 2	IDU 3	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	2.5	4.2	2.30	2.30	3.90	2.40	7.60	0.55	2.60	2.44	11.50	4.86	8.50	A+++
2.5	3.5	3.5	2.26	3.12	3.12	2.40	7.60	0.55	2.60	2.44	11.50	4.86	8.50	A+++

Type OFAA200MHA085

Heating

Combination with 2, 3 or 4 indoor units (IDU)				Nominal output (kW)				P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
IDU 1	IDU 2	IDU 3	IDU 4	IDU 1	IDU 2	IDU 3	IDU 4	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0			2.30	2.30			2.80	8.00	0.55	3.30	2.44	14.64	3.68	3.75	A
2.0	2.5			2.30	3.60			3.00	10.0	0.55	3.30	2.44	14.6	3.71	3.75	A
2.0	3.5			2.30	4.50			3.20	10.0	0.55	3.30	2.44	14.64	3.72	3.75	A
2.0	4.2			2.30	5.40			3.40	10.0	0.55	3.30	2.44	14.64	3.76	3.80	A
2.0	5.0			2.30	6.00			3.80	10.5	0.55	3.30	2.44	14.64	3.74	3.80	A
2.0	7.1			2.30	7.00			4.00	10.5	0.55	3.30	2.44	14.64	3.72	3.85	A
2.5	2.5			3.60	3.60			3.40	10.5	0.55	3.30	2.44	14.64	3.71	3.85	A
2.5	3.5			3.60	4.50			3.80	10.5	0.55	3.30	2.44	14.64	3.86	3.83	A
2.5	4.2			3.60	5.40			4.00	10.5	0.55	3.30	2.44	14.64	3.91	3.87	A
2.5	5.0			3.60	6.00			4.40	10.5	0.55	3.30	2.44	14.64	3.84	3.85	A
2.5	7.1			3.26	6.34			4.40	10.5	0.55	3.30	2.44	14.64	3.76	3.84	A
3.5	3.5			4.50	4.50			4.00	10.5	0.55	3.30	2.44	14.64	3.83	3.86	A
3.5	4.2			4.36	5.24			4.40	10.5	0.55	3.30	2.44	14.64	3.84	3.82	A
3.5	5.0			3.86	5.14			4.40	10.5	0.55	3.30	2.44	14.64	3.80	3.80	A
3.5	7.1			3.76	5.84			4.40	10.5	0.55	3.30	2.44	14.64	3.84	3.84	A
4.2	4.2			4.80	4.80			4.40	10.5	0.55	3.30	2.44	14.64	3.86	3.86	A
4.2	5.0			4.55	5.05			4.40	10.5	0.55	3.30	2.44	14.64	3.86	3.83	A
4.2	7.1			4.18	5.42			4.40	10.5	0.55	3.30	2.44	14.64	3.87	3.86	A
5.0	5.0			4.80	4.80			4.40	10.5	0.55	3.30	2.44	14.64	3.90	3.86	A
5.0	7.1			4.43	5.17			4.40	10.5	0.55	3.30	2.44	14.64	3.87	3.87	A
7.1	7.1			4.80	4.80			4.40	10.5	0.55	3.30	2.44	14.64	3.84	3.85	A
2.0	2.0	2.0		2.30	2.30	2.30		3.80	10.5	0.55	3.40	2.44	15.08	3.73	3.80	A
2.0	2.0	2.5		2.30	2.30	3.60		4.00	10.5	0.55	3.40	2.44	15.08	3.80	3.80	A
2.0	2.0	3.5		2.30	2.30	4.50		4.20	10.5	0.55	3.40	2.44	15.08	3.81	3.80	A
2.0	2.0	4.2		2.21	2.21	5.18		4.40	10.5	0.55	3.40	2.44	15.08	3.87	3.80	A
2.0	2.0	5.0		2.08	2.08	5.43		4.40	10.5	0.55	3.40	2.44	15.08	3.87	3.80	A
2.0	2.0	7.1		1.90	1.90	5.79		4.40	10.5	0.55	3.40	2.44	15.08	3.84	3.80	A
2.0	2.5	2.5		2.32	3.64	3.64		4.40	10.5	0.55	3.40	2.44	15.08	3.78	3.80	A
2.0	2.5	3.5		2.12	3.32	4.15		4.40	10.5	0.55	3.40	2.44	15.08	3.87	3.80	A
2.0	2.5	4.2		1.95	3.06	4.59		4.40	10.5	0.55	3.40	2.44	15.08	3.87	3.80	A
2.0	2.5	5.0		1.86	2.90	4.84		4.40	10.5	0.55	3.40	2.44	15.08	3.89	3.82	A
2.0	2.5	7.1		1.71	2.68	5.21		4.40	10.5	0.55	3.40	2.44	15.08	3.84	3.82	A
2.0	3.5	3.5		1.95	3.82	3.82		4.40	10.5	0.55	3.40	2.44	15.08	3.81	3.82	A
2.0	3.5	4.2		1.81	3.54	4.25		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.82	A
2.0	3.5	5.0		1.73	3.38	4.50		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.82	A
2.0	3.5	7.1		1.60	3.13	4.87		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.82	A
2.0	4.2	4.2		1.69	3.96	3.96		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.82	A
2.0	4.2	5.0		1.61	3.78	4.20		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.82	A
2.0	4.2	7.1		1.50	3.53	4.57		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.87	A
2.0	5.0	5.0		1.54	4.03	4.03		4.40	10.5	0.55	3.40	2.44	15.08	3.90	3.87	A
2.5	2.5	2.5		3.20	3.20	3.20		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.87	A
2.5	2.5	3.5		2.95	2.95	3.69		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.87	A
2.5	2.5	4.2		2.74	2.74	4.11		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.87	A
2.5	2.5	5.0		2.62	2.62	4.36		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.87	A
2.5	2.5	7.1		2.43	2.43	4.73		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.90	A
2.5	3.5	3.5		2.74	3.43	3.43		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
2.5	3.5	4.2		2.56	3.20	3.84		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
2.5	3.5	5.0		2.45	3.06	4.09		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
2.5	3.5	7.1		2.29	2.86	4.45		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
2.5	4.2	4.2		2.40	3.60	3.60		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
2.5	4.2	5.0		2.30	3.46	3.84		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
2.5	4.2	7.1		2.16	3.24	4.20		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A

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6202775

Combination with 2, 3 or 4 indoor units (IDU)				Nominal output (kW)				P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
IDU 1	IDU 2	IDU 3	IDU 4	IDU 1	IDU 2	IDU 3	IDU 4	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	5.0	5.0		2.22	3.69	3.69		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.85	A
3.5	3.5	3.5		3.20	3.20	3.20		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.90	A
3.5	3.5	4.2		3.00	3.00	3.60		4.40	10.5	0.55	3.40	2.44	15.08	3.92	3.90	A
3.5	3.5	5.0		2.88	2.88	3.84		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
3.5	3.5	7.1		2.70	2.70	4.20		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.85	A
3.5	4.2	4.2		2.82	3.39	3.39		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
3.5	4.2	5.0		2.72	3.26	3.62		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
3.5	5.0	5.0		2.62	3.49	3.49		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
4.2	4.2	4.2		3.20	3.20	3.20		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
4.2	4.2	5.0		3.09	3.09	3.43		4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	2.0	2.0	2.30	2.30	2.30	2.30	4.20	10.5	0.55	3.40	2.44	15.08	3.80	3.85	A
2.0	2.0	2.0	2.5	2.1	2.10	2.10	3.29	4.20	10.5	0.55	3.40	2.44	15.08	3.93	3.85	A
2.0	2.0	2.0	3.5	1.94	1.94	1.94	3.79	4.40	10.5	0.55	3.40	2.44	15.08	3.93	3.85	A
2.0	2.0	2.0	4.2	1.80	1.80	1.80	4.21	4.40	10.5	0.55	3.40	2.44	15.08	3.93	3.85	A
2.0	2.0	2.0	5.0	1.71	1.71	1.71	4.47	4.40	10.5	0.55	3.40	2.44	15.08	3.93	3.85	A
2.0	2.0	2.0	7.1	1.59	1.59	1.59	4.83	4.40	10.5	0.55	3.40	2.44	15.08	3.93	3.85	A
2.0	2.0	2.5	2.5	1.87	1.87	2.93	2.93	4.40	10.5	0.55	3.40	2.44	15.08	3.93	3.85	A
2.0	2.0	2.5	3.5	1.74	1.74	2.72	3.40	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.85	A
2.0	2.0	2.5	4.2	1.62	1.62	2.54	3.81	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	2.5	5.0	1.55	1.55	2.43	4.06	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	2.5	7.1	1.45	1.45	2.27	4.42	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	3.5	3.5	1.62	1.62	3.18	3.18	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	3.5	4.2	1.52	1.52	2.98	3.58	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	3.5	5.0	1.46	1.46	2.86	3.81	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	4.2	4.2	1.43	1.43	3.37	3.37	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.0	4.2	5.0	1.38	1.38	3.24	3.60	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.5	2.5	2.5	1.69	2.64	2.64	2.64	4.40	10.5	0.55	3.40	2.44	15.08	3.95	3.90	A
2.0	2.5	2.5	3.5	1.58	2.47	2.47	3.09	4.40	10.5	0.55	3.40	2.44	15.08	3.97	3.90	A
2.0	2.5	2.5	4.2	1.48	2.32	2.32	3.48	4.40	10.5	0.55	3.40	2.44	15.08	3.97	3.95	A
2.0	2.5	2.5	5.0	1.42	2.23	2.23	3.72	4.40	10.5	0.55	3.40	2.44	15.08	3.97	3.95	A
2.0	2.5	3.5	3.5	1.48	2.32	2.90	2.90	4.40	10.5	0.55	3.40	2.44	15.08	3.97	3.95	A
2.0	2.5	3.5	4.2	1.40	2.19	2.73	3.28	4.40	10.5	0.55	3.40	2.44	15.08	3.97	3.95	A
2.0	2.5	3.5	5.0	1.35	2.11	2.63	3.51	4.40	10.5	0.55	3.40	2.44	15.08	3.97	3.95	A
2.0	2.5	4.2	4.2	1.32	2.07	3.10	3.10	4.40	10.5	0.55	3.40	2.44	15.08	4.00	3.95	A
2.0	2.5	4.2	5.0	1.28	2.00	3.00	3.33	4.40	10.5	0.55	3.40	2.44	15.08	4.00	3.95	A
2.0	3.5	3.5	3.5	1.40	2.73	2.73	2.73	4.40	10.5	0.55	3.40	2.44	15.08	4.00	3.95	A
2.0	3.5	3.5	4.2	1.32	2.59	2.59	3.10	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	2.5	2.5	2.40	2.40	2.40	2.40	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	2.5	3.5	2.26	2.26	2.26	2.82	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	2.5	4.2	2.13	2.13	2.13	3.20	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	2.5	5.0	2.06	2.06	2.06	3.43	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	3.5	3.5	2.13	2.13	2.67	2.67	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	3.5	4.2	2.02	2.02	2.53	3.03	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	3.5	5.0	1.95	1.95	2.44	3.25	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	2.5	4.2	4.2	1.68	1.68	3.12	3.12	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	3.5	3.5	3.5	2.02	2.53	2.53	2.53	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
2.5	3.5	3.5	4.2	1.92	2.40	2.40	2.88	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+
3.5	3.5	3.5	3.5	2.40	2.40	2.40	2.40	4.40	10.5	0.55	3.40	2.44	15.08	4.00	4.00	A+

Cooling

Combination with 2, 3 or 4 indoor units (IDU)				Nominal output (kW)				P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
IDU 1	IDU 2	IDU 3	IDU 4	IDU 1	IDU 2	IDU 3	IDU 4	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0			2.00	2.00			2.5	5.6	0.55	3.20	2.44	14.20	3.08	6.20	A++
2.0	2.5			2.00	2.60			2.5	6.7	0.55	3.20	2.44	14.20	3.07	6.20	A++
2.0	3.5			2.00	3.60			2.5	8.1	0.55	3.20	2.44	14.20	3.11	6.20	A++
2.0	4.2			2.00	4.40			2.5	7.8	0.55	3.20	2.44	14.20	3.12	6.20	A++
2.0	5.0			2.00	5.20			2.5	9.3	0.55	3.20	2.44	14.20	3.16	6.20	A++
2.0	7.1			2.00	6.50			2.5	9.3	0.55	3.30	2.44	14.64	3.21	6.20	A++
2.5	2.5			2.60	2.60			2.5	7.8	0.55	3.30	2.44	14.64	3.25	6.20	A++
2.5	3.5			2.60	3.60			2.5	9.1	0.55	3.30	2.44	14.64	3.13	6.20	A++

Combination with 2, 3 or 4 indoor units (IDU)				Nominal output (kW)				P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
IDU 1	IDU 2	IDU 3	IDU 4	IDU 1	IDU 2	IDU 3	IDU 4	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	4.2			2.60	4.40			2.5	9.3	0.55	3.30	2.44	14.64	3.18	6.20	A++
2.5	5.0			2.60	5.20			2.5	9.3	0.55	3.30	2.44	14.64	3.32	6.20	A++
2.5	7.1			2.43	6.07			2.5	9.3	0.55	3.30	2.44	14.64	3.27	6.20	A++
3.5	3.5			3.60	3.60			2.5	9.3	0.55	3.30	2.44	14.64	3.27	6.20	A++
3.5	4.2			3.60	4.40			2.5	9.3	0.55	3.30	2.44	14.64	3.31	6.20	A++
3.5	5.0			3.31	4.79			2.5	9.5	0.55	3.30	2.44	14.64	3.21	6.20	A++
3.5	7.1			3.03	5.47			2.5	9.5	0.55	3.30	2.44	14.64	3.28	6.20	A++
4.2	4.2			4.25	4.25			2.5	9.5	0.55	3.30	2.44	14.64	3.28	6.20	A++
4.2	5.0			3.90	4.60			2.5	9.5	0.55	3.30	2.44	14.64	3.28	6.20	A++
4.2	7.1			3.43	5.07			2.5	9.5	0.55	3.30	2.44	14.64	3.29	6.20	A++
5.0	5.0			4.25	4.25			2.5	9.5	0.55	3.30	2.44	14.64	3.32	6.20	A++
5.0	7.1			3.78	4.72			2.5	9.5	0.55	3.30	2.44	14.64	3.33	6.20	A++
7.1	7.1			4.25	4.25			2.5	9.5	0.55	3.30	2.44	14.64	3.33	6.20	A++
2.0	2.0	2.0		2.00	2.00	2.00		3.0	9.5	0.55	3.50	2.44	15.53	3.24	6.70	A++
2.0	2.0	2.5		2.00	2.00	2.60		3.0	9.5	0.55	3.50	2.44	15.53	3.30	6.70	A++
2.0	2.0	3.5		2.00	2.00	3.60		3.0	9.5	0.55	3.50	2.44	15.53	3.30	6.70	A++
2.0	2.0	4.2		2.00	2.00	4.40		3.2	9.5	0.55	3.50	2.44	15.53	3.28	6.70	A++
2.0	2.0	5.0		1.85	1.85	4.80		3.2	9.5	0.55	3.50	2.44	15.53	3.31	6.70	A++
2.0	2.0	7.1		1.62	1.62	5.26		3.2	9.5	0.55	3.50	2.44	15.53	3.31	6.70	A++
2.0	2.5	2.5		2.00	2.60	2.60		3.2	9.5	0.55	3.50	2.44	15.53	3.27	6.70	A++
2.0	2.5	3.5		2.00	2.60	3.60		3.2	9.5	0.55	3.50	2.44	15.53	3.28	6.70	A++
2.0	2.5	4.2		1.89	2.46	4.16		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	2.5	5.0		1.73	2.26	4.51		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	2.5	7.1		1.53	1.99	4.98		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	3.5	3.5		1.85	3.33	3.33		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	3.5	4.2		1.70	3.06	3.74		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	3.5	5.0		1.57	2.83	4.09		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	3.5	7.1		1.40	2.53	4.57		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	4.2	4.2		1.57	3.46	3.46		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	4.2	5.0		1.47	3.22	3.81		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	4.2	7.1		1.32	2.90	4.28		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.0	5.0	5.0		1.37	3.56	3.56		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.70	A++
2.5	2.5	2.5		2.60	2.60	2.60		3.2	9.5	0.55	3.50	2.44	15.53	3.32	6.72	A++
2.5	2.5	3.5		2.51	2.51	3.48		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.72	A++
2.5	2.5	4.2		2.30	2.30	3.90		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.74	A++
2.5	2.5	5.0		2.13	2.13	4.25		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.74	A++
2.5	2.5	7.1		1.89	1.89	4.72		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	3.5	3.5		2.26	3.12	3.12		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.73	A++
2.5	3.5	4.2		2.08	2.89	3.53		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	3.5	5.0		1.94	2.68	3.88		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	3.5	7.1		1.74	2.41	4.35		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	4.2	4.2		1.94	3.28	3.28		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	4.2	5.0		1.81	3.07	3.62		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	4.2	7.1		1.64	2.77	4.09		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
2.5	5.0	5.0		1.70	3.40	3.40		3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.70	A++
3.5	3.5	3.5		2.83	2.83	2.83		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.75	A++
3.5	3.5	4.2		2.64	2.64	3.22		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.70	A++
3.5	3.5	5.0		2.47	2.47	3.56		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.70	A++
3.5	3.5	7.1		2.23	2.23	4.03		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.70	A++
3.5	4.2	4.2		2.47	3.02	3.02		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.75	A++
3.5	4.2	5.0		2.32	2.83	3.35		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.75	A++
3.5	5.0	5.0		2.19	3.16	3.16		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.75	A++
4.2	4.2	4.2		2.83	2.83	2.83		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.75	A++
4.2	4.2	5.0		2.67	2.67	3.16		3.2	9.5	0.55	3.50	2.44	15.53	3.36	6.75	A++
2.0	2.0	2.0	2.0	2.00	2.00	2.00	2.00	3.2	9.5	0.55	3.50	2.44	15.53	3.29	6.80	A++
2.0	2.0	2.0	2.5	1.98	1.98	1.98	2.57	3.2	9.5	0.55	3.50	2.44	15.53	3.33	6.80	A++
2.0	2.0	2.0	3.5	1.77	1.77	1.77	3.19	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	2.0	4.2	1.63	1.63	1.63	3.60	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	2.0	5.0	1.52	1.52	1.52	3.95	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	2.0	7.1	1.36	1.36	1.36	4.42	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.70	A++
2.0	2.0	2.5	2.5	1.85	1.85	2.40	2.40	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	2.5	3.5	1.67	1.67	2.17	3.00	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	2.5	4.2	1.55	1.55	2.01	3.40	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++

Design information for Vitoclima Multi Split (cont.)

Combination with 2, 3 or 4 indoor units (IDU)				Nominal output (kW)				P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
IDU 1	IDU 2	IDU 3	IDU 4	IDU 1	IDU 2	IDU 3	IDU 4	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0	2.5	5.0	1.44	1.44	1.87	3.75	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	2.5	7.1	1.30	1.30	1.69	4.22	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.70	A++
2.0	2.0	3.5	3.5	1.52	1.52	2.73	2.73	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.80	A++
2.0	2.0	3.5	4.2	1.42	1.42	2.55	3.12	3.2	9.5	0.55	3.50	2.44	15.53	3.35	6.70	A++
2.0	2.0	3.5	5.0	1.33	1.33	2.39	3.45	3.2	9.5	0.55	3.50	2.44	15.53	3.37	6.70	A++
2.0	2.0	4.2	4.2	1.33	1.33	2.92	2.92	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.0	4.2	5.0	1.25	1.25	2.75	3.25	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	2.5	2.5	1.73	2.26	2.26	2.26	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	2.5	3.5	1.57	2.05	2.05	2.83	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	2.5	4.2	1.47	1.91	1.91	3.22	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	2.5	5.0	1.37	1.78	1.78	3.56	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	3.5	3.5	1.44	1.87	2.59	2.59	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	3.5	4.2	1.35	1.75	2.43	2.97	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	3.5	5.0	1.27	1.65	2.28	3.30	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	4.2	4.2	1.27	1.65	2.79	2.79	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	2.5	4.2	5.0	1.20	1.56	2.63	3.11	3.2	9.5	0.55	3.50	2.44	15.53	3.37	7.00	A++
2.0	3.5	3.5	3.5	1.33	2.39	2.39	2.39	3.2	9.5	0.55	3.50	2.44	15.53	3.39	7.00	A++
2.0	3.5	3.5	4.2	1.25	2.25	2.25	2.75	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	2.5	2.5	2.13	2.13	2.13	2.13	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	2.5	3.5	1.94	1.94	1.94	2.68	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	2.5	4.2	1.81	1.81	1.81	3.07	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	2.5	5.0	1.70	1.70	1.70	3.40	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	3.5	3.5	1.78	1.78	2.47	2.47	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	3.5	4.2	1.67	1.67	2.32	2.83	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	3.5	5.0	1.58	1.58	2.19	3.16	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	2.5	4.2	4.2	1.58	1.58	2.67	2.67	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	3.5	3.5	3.5	1.65	2.28	2.28	2.28	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
2.5	3.5	3.5	4.2	1.56	2.15	2.15	2.63	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++
3.5	3.5	3.5	3.5	2.13	2.13	2.13	2.13	3.2	9.5	0.55	3.50	2.44	15.53	3.40	7.00	A++

Type OFAA200MHA105

Heating

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0				2.30	2.30				2.80	8.0	0.55	3.30	2.44	14.64	3.54	3.75	A
2.0	2.5				2.30	3.60				3.00	10.0	0.55	3.30	2.44	14.64	3.55	3.75	A
2.0	3.5				2.30	4.50				3.20	10.0	0.55	3.30	2.44	14.64	3.58	3.75	A
2.0	4.2				2.30	5.40				3.40	10.0	0.55	3.30	2.44	14.64	3.58	3.80	A
2.0	5.0				2.30	6.00				3.80	11.5	0.55	3.30	2.44	14.64	3.62	3.80	A
2.0	7.1				2.30	7.00				4.00	11.5	0.55	3.30	2.44	14.64	3.65	3.85	A
2.5	2.5				3.60	3.60				3.40	10.5	0.55	3.30	2.44	14.64	3.56	3.85	A
2.5	3.5				3.60	4.50				3.80	10.5	0.55	3.30	2.44	14.64	3.58	3.83	A
2.5	4.2				3.60	5.40				4.00	10.5	0.55	3.30	2.44	14.64	3.60	3.87	A
2.5	5.0				3.60	6.00				4.40	10.5	0.55	3.30	2.44	14.64	3.64	3.85	A
2.5	7.1				3.57	6.93				4.40	11.0	0.55	3.30	2.44	14.64	3.68	3.84	A
3.5	3.5				4.50	4.50				4.00	10.5	0.55	3.30	2.44	14.64	3.60	3.86	A
3.5	4.2				4.50	5.40				4.40	10.5	0.55	3.30	2.44	14.64	3.61	3.82	A
3.5	5.0				4.50	6.00				4.40	11.5	0.55	3.30	2.44	14.64	3.65	3.80	A
3.5	7.1				4.11	6.39				4.40	11.5	0.55	3.30	2.44	14.64	3.65	3.84	A
4.2	4.2				5.25	5.25				4.40	11.5	0.55	3.30	2.44	14.64	3.65	3.86	A
4.2	5.0				4.97	5.53				4.40	11.5	0.55	3.30	2.44	14.64	3.65	3.83	A
4.2	7.1				4.57	5.93				4.40	11.5	0.55	3.30	2.44	14.64	3.65	3.86	A
5.0	5.0				5.25	5.25				4.40	11.5	0.55	3.30	2.44	14.64	3.61	3.80	A
5.0	7.1				4.85	5.65				4.40	11.5	0.55	3.30	2.44	14.64	3.30	3.87	A
7.1	7.1				5.25	5.25				4.40	11.5	0.55	3.30	2.44	14.64	3.65	3.85	A
2.0	2.0	2.0			2.30	2.30	2.30			3.80	11.5	0.55	3.40	2.44	15.08	3.58	3.80	A
2.0	2.0	2.5			2.30	2.30	3.60			4.00	11.5	0.55	3.40	2.44	15.08	3.60	3.80	A
2.0	2.0	3.5			2.30	2.30	4.50			4.20	11.5	0.55	3.40	2.44	15.08	3.64	3.80	A

6202775

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0	4.2			2.30	2.30	5.40			4.40	11.5	0.55	3.40	2.44	15.08	3.66	3.80	A
2.0	2.0	5.0			2.28	2.28	5.94			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.80	A
2.0	2.0	7.1			2.08	2.08	6.34			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.80	A
2.0	2.5	2.5			2.30	3.60	3.60			4.40	11.5	0.55	3.40	2.44	15.08	3.61	3.80	A
2.0	2.5	3.5			2.30	3.60	4.50			4.40	11.5	0.55	3.40	2.44	15.08	3.61	3.80	A
2.0	2.5	4.2			2.14	3.35	5.02			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.80	A
2.0	2.5	5.0			2.03	3.18	5.29			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.82	A
2.0	2.5	7.1			1.87	2.93	5.70			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.82	A
2.0	3.5	3.5			2.14	4.18	4.18			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.82	A
2.0	3.5	4.2			1.98	3.87	4.65			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.82	A
2.0	3.5	5.0			1.89	3.69	4.92			4.40	11.5	0.55	3.40	2.44	15.08	3.65	3.82	A
2.0	3.5	7.1			1.75	3.42	5.33			4.40	11.5	0.55	3.40	2.44	15.08	3.67	3.82	A
2.0	4.2	4.2			1.84	4.33	4.33			4.40	11.5	0.55	3.40	2.44	15.08	3.67	3.82	A
2.0	4.2	5.0			1.76	4.14	4.60			4.40	11.5	0.55	3.40	2.44	15.08	3.67	3.82	A
2.0	4.2	7.1			1.64	3.86	5.00			4.40	11.5	0.55	3.40	2.44	15.08	3.67	3.87	A
2.0	5.0	5.0			1.69	4.41	4.41			4.40	11.5	0.55	3.40	2.44	15.08	3.67	3.87	A
2.0	5.0	7.1			1.58	4.12	4.80			4.40	11.5	0.55	3.40	2.44	15.08	3.67	3.87	A
2.5	2.5	2.5			3.50	3.50	3.50			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.87	A
2.5	2.5	3.5			3.23	3.23	4.04			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.87	A
2.5	2.5	4.2			3.00	3.00	4.50			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.87	A
2.5	2.5	5.0			2.86	2.86	4.77			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.87	A
2.5	2.5	7.1			2.66	2.66	5.18			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.90	A
2.5	3.5	3.5			3.00	3.75	3.75			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	3.5	4.2			2.80	3.50	4.20			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	3.5	5.0			2.68	3.35	4.47			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	3.5	7.1			2.50	3.13	4.87			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	4.2	4.2			2.63	3.94	3.94			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	4.2	5.0			2.52	3.78	4.20			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	4.2	7.1			2.36	3.54	4.59			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	5.0	5.0			2.42	4.04	4.04			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
2.5	5.0	7.1			2.28	3.80	4.43			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.85	A
3.5	3.5	3.5			3.50	3.50	3.50			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.90	A
3.5	3.5	4.2			3.28	3.28	3.94			4.40	11.5	0.55	3.40	2.44	15.08	3.68	3.90	A
3.5	3.5	5.0			3.15	3.15	4.20			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
3.5	3.5	7.1			2.95	2.95	4.59			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.85	A
3.5	4.2	4.2			3.09	3.71	3.71			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
3.5	4.2	5.0			2.97	3.57	3.96			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
3.5	5.0	5.0			2.86	3.82	3.82			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
4.2	4.2	4.2			3.50	3.50	3.50			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
4.2	4.2	5.0			3.38	3.38	3.75			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
4.2	5.0	5.0			3.26	3.62	3.62			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
5.0	5.0	5.0			3.50	3.50	3.50			4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
2.0	2.0	2.0	2.0		2.30	2.30	2.30	2.30		4.20	11.5	0.55	3.40	2.44	15.08	3.61	3.85	A
2.0	2.0	2.0	2.5		2.30	2.30	2.30	3.60		4.20	11.5	0.55	3.40	2.44	15.08	3.70	3.85	A
2.0	2.0	2.0	3.5		2.12	2.12	2.12	4.14		4.40	11.5	0.55	3.40	2.44	15.08	3.70	3.85	A
2.0	2.0	2.0	4.2		1.96	1.96	1.96	4.61		4.40	11.5	0.55	3.40	2.44	15.08	3.70	3.85	A
2.0	2.0	2.0	5.0		1.87	1.87	1.87	4.88		4.40	11.5	0.55	3.40	2.44	15.08	3.70	3.85	A
2.0	2.0	2.0	7.1		1.74	1.74	1.74	5.29		4.40	11.5	0.55	3.40	2.44	15.08	3.70	3.85	A
2.0	2.0	2.5	2.5		2.05	2.05	3.20	3.20		4.40	11.5	0.55	3.40	2.44	15.08	3.70	3.85	A
2.0	2.0	2.5	3.5		1.90	1.90	2.98	3.72		4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.85	A
2.0	2.0	2.5	4.2		1.78	1.78	2.78	4.17		4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
2.0	2.0	2.5	5.0		1.70	1.70	2.66	4.44		4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
2.0	2.0	2.5	7.1		1.59	1.59	2.49	4.84		4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
2.0	2.0	3.5	3.5		1.78	1.78	3.47	3.47		4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
2.0	2.0	3.5	4.2		1.67	1.67	3.26	3.91		4.40	11.5	0.55	3.40	2.44	15.08	3.71	3.90	A
2.0	2.0	3.5	5.0		1.60	1.60	3.13	4.17		4.40	11.5	0.55	3.40	2.44	15.08	3.74	3.90	A
2.0	2.0	3.5	7.1		1.50	1.50	2.93	4.57		4.40	11.5	0.55	3.40	2.44	15.08	3.74	3.90	A
2.0	2.0	4.2	4.2		1.57	1.57	3.68	3.68		4.40	11.5	0.55	3.40	2.44	15.08	3.74	3.90	A
2.0	2.0	4.2	5.0		1.51	1.51	3.54	3.94		4.40	11.5	0.55	3.40	2.44	15.08	3.74	3.90	A
2.0	2.0	5.0	5.0		1.45	1.45	3.80	3.80		4.40	11.5	0.55	3.40	2.44	15.08	3.74	3.90	ErP
2.0	2.5	2.5	2.5		1.84	2.89	2.89	2.89		4.40	11.5	0.55	3.40	2.44	15.08	3.74	3.90	A
2.0	2.5	2.5	3.5		1.73	2.70	2.70	3.38		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.90	A

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.5	2.5	4.2		1.62	2.54	2.54	3.81		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	2.5	5.0		1.56	2.44	2.44	4.06		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	2.5	7.1		1.46	2.29	2.29	4.45		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	3.5	3.5		1.62	2.54	3.17	3.17		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	3.5	4.2		1.53	2.39	2.99	3.59		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	3.5	5.0		1.47	2.30	2.88	3.84		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	4.2	4.2		1.45	2.26	3.40	3.40		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	4.2	5.0		1.40	2.18	3.28	3.64		4.40	11.5	0.55	3.40	2.44	15.08	3.75	3.95	A
2.0	2.5	5.0	5.0		1.35	2.11	3.52	3.52		4.40	11.5	0.55	3.40	2.44	15.08	3.78	3.95	A
2.0	3.5	3.5	3.5		1.53	2.99	2.99	2.99		4.40	11.5	0.55	3.40	2.44	15.08	3.78	3.95	A
2.0	3.5	3.5	4.2		1.45	2.83	2.83	3.40		4.40	11.5	0.55	3.40	2.44	15.08	3.78	4.00	A+
2.0	3.5	3.5	5.0		1.40	2.73	2.73	3.64		4.40	11.5	0.55	3.40	2.44	15.08	3.78	4.00	A+
2.0	3.5	4.2	4.2		1.37	2.68	3.22	3.22		4.40	11.5	0.55	3.40	2.44	15.08	3.78	4.00	A+
2.0	3.5	4.2	5.0		1.33	2.60	3.12	3.46		4.40	11.5	0.55	3.40	2.44	15.08	3.78	4.00	A+
2.0	4.2	4.2	4.2		1.31	3.06	3.06	3.06		4.40	11.5	0.55	3.40	2.44	15.08	3.78	4.00	A+
2.5	2.5	2.5	2.5		2.63	2.63	2.63	2.63		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	3.5		2.47	2.47	2.47	3.09		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	4.2		2.33	2.33	2.33	3.50		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	5.0		2.25	2.25	2.25	3.75		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	7.1		2.12	2.12	2.12	4.13		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	3.5	3.5		2.33	2.33	2.92	2.92		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	3.5	4.2		2.21	2.21	2.76	3.32		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	3.5	5.0		2.14	2.14	2.67	3.56		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	4.2	4.2		2.10	2.10	3.15	3.15		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	4.2	5.0		2.03	2.03	3.05	3.39		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	5.0	5.0		1.97	1.97	3.28	3.28		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	3.5	3.5	3.5		2.21	2.76	2.76	2.76		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	3.5	3.5	4.2		2.10	2.63	2.63	3.15		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	3.5	3.5	5.0		2.03	2.54	2.54	3.39		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	3.5	4.2	4.2		2.00	2.50	3.00	3.00		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
3.5	3.5	3.5	3.5		2.63	2.63	2.63	2.63		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
3.5	3.5	3.5	4.2		2.50	2.50	2.50	3.00		4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.0	2.0	2.10	2.10	2.10	2.10	2.10	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.0	2.5	1.89	1.89	1.89	1.89	2.95	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.0	3.5	1.76	1.76	1.76	1.76	3.45	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.0	4.2	1.65	1.65	1.65	1.65	3.88	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.0	5.0	1.59	1.59	1.59	1.59	4.14	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.5	2.5	1.71	1.71	1.71	2.68	2.68	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.5	3.5	1.61	1.61	1.61	2.52	3.15	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.5	4.2	1.52	1.52	1.52	2.38	3.57	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	2.5	5.0	1.46	1.46	1.46	2.29	3.82	4.20	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	3.5	3.5	1.52	1.52	1.52	2.97	2.97	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	3.5	4.2	1.44	1.44	1.44	2.81	3.38	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	3.5	5.0	1.39	1.39	1.39	2.72	3.62	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.0	4.2	4.2	1.36	1.36	1.36	3.20	3.20	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	2.5	2.5	1.57	1.57	2.45	2.45	2.45	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	2.5	3.5	1.48	1.48	2.32	2.32	2.90	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	2.5	4.2	1.40	1.40	2.20	2.20	3.30	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	2.5	5.0	1.36	1.36	2.12	2.12	3.54	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	3.5	3.5	1.40	1.40	2.20	2.75	2.75	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	3.5	4.2	1.33	1.33	2.09	2.61	3.13	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	3.5	5.0	1.29	1.29	2.02	2.53	3.37	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	2.5	4.2	4.2	1.27	1.27	1.99	2.98	2.98	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.0	3.5	3.5	3.5	1.33	1.33	2.61	2.61	2.61	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	2.5	2.5	2.5	1.45	2.26	2.26	2.26	2.26	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	2.5	2.5	3.5	1.37	2.15	2.15	2.15	2.68	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	2.5	2.5	4.2	1.31	2.04	2.04	2.04	3.06	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	2.5	2.5	5.0	1.26	1.98	1.98	1.98	3.30	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	2.5	3.5	3.5	1.31	2.04	2.04	2.55	2.55	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	2.5	3.5	4.2	1.24	1.95	1.95	2.44	2.92	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.0	2.5	3.5	3.5	3.5	1.24	1.95	2.44	2.44	2.44	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	2.5	2.5	2.10	2.10	2.10	2.10	2.10	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+

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Design information for Vitoclima Multi Split (cont.)

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		COP	SCOP	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	2.5	2.5	2.5	3.5	2.00	2.00	2.00	2.00	2.50	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	2.5	4.2	1.91	1.91	1.91	1.91	2.86	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	2.5	5.0	1.85	1.85	1.85	1.85	3.09	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+
2.5	2.5	2.5	3.5	3.5	1.91	1.91	1.91	2.39	2.39	4.40	11.5	0.55	3.40	2.44	15.08	3.80	4.00	A+

Cooling

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.0	2.0				2.00	2.00				2.50	5.6	0.55	3.60	2.44	15.97	—	—	—
2.0	2.5				2.00	2.60				2.50	6.7	0.55	3.60	2.44	15.97	2.75	6.20	A++
2.0	3.5				2.00	3.60				2.50	8.1	0.55	3.60	2.44	15.97	2.76	6.20	A++
2.0	4.2				2.00	4.40				2.50	7.8	0.55	3.60	2.44	15.97	2.78	6.20	A++
2.0	5.0				2.00	5.20				2.50	9.3	0.55	3.60	2.44	15.97	2.79	6.20	A++
2.0	7.1				2.00	6.50				2.50	9.3	0.55	3.60	2.44	15.97	2.81	6.20	A++
2.5	2.5				2.60	2.60				2.50	7.8	0.55	3.60	2.44	15.97	2.74	6.20	A++
2.5	3.5				2.60	3.60				2.50	9.1	0.55	3.60	2.44	15.97	2.77	6.20	A++
2.5	4.2				2.60	4.40				2.50	9.3	0.55	3.60	2.44	15.97	2.78	6.20	A++
2.5	5.0				2.60	5.20				2.50	9.3	0.55	3.60	2.44	15.97	2.80	6.20	A++
2.5	7.1				2.60	6.50				2.50	9.3	0.55	3.60	2.44	15.97	2.87	6.20	A++
3.5	3.5				3.60	3.60				2.50	9.3	0.55	3.60	2.44	15.97	2.79	6.20	A++
3.5	4.2				3.60	4.40				2.50	9.3	0.55	3.60	2.44	15.97	2.81	6.20	A++
3.5	5.0				3.60	5.20				2.50	10.0	0.55	3.60	2.44	15.97	2.84	6.20	A++
3.5	7.1				3.56	6.44				2.50	11.0	0.55	3.60	2.44	15.97	2.87	6.20	A++
4.2	4.2				4.40	4.40				2.50	10.0	0.55	3.60	2.44	15.97	2.85	6.20	A++
4.2	5.0				4.40	5.20				2.50	10.5	0.55	3.60	2.44	15.97	2.84	6.20	A++
4.2	7.1				4.04	5.96				2.50	11.0	0.55	3.60	2.44	15.97	2.88	6.20	A++
5.0	5.0				5.00	5.00				2.50	11.0	0.55	3.60	2.44	15.97	2.86	6.20	A++
5.0	7.1				4.44	5.56				2.50	11.0	0.55	3.60	2.44	15.97	2.57	6.20	A++
7.1	7.1				5.00	5.00				2.50	11.0	0.55	3.60	2.44	15.97	2.90	6.20	A++
2.0	2.0	2.0			2.00	2.00	2.00			3.00	9.50	0.55	3.80	2.44	16.86	2.73	6.70	A++
2.0	2.0	2.5			2.00	2.00	2.60			3.00	9.50	0.55	3.80	2.44	16.86	2.75	6.70	A++
2.0	2.0	3.5			2.00	2.00	3.60			3.00	9.50	0.55	3.80	2.44	16.86	2.76	6.70	A++
2.0	2.0	4.2			2.00	2.00	4.40			3.20	9.50	0.55	3.80	2.44	16.86	2.80	6.70	A++
2.0	2.0	5.0			2.00	2.00	5.20			3.20	10.0	0.55	3.80	2.44	16.86	2.88	6.70	A++
2.0	2.0	7.1			1.90	1.90	6.19			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.70	A++
2.0	2.5	2.5			2.00	2.60	2.60			3.20	9.50	0.55	3.80	2.44	16.86	2.77	6.70	A++
2.0	2.5	3.5			2.00	2.60	3.60			3.20	9.50	0.55	3.80	2.44	16.86	2.80	6.70	A++
2.0	2.5	4.2			2.00	2.60	4.40			3.20	10.0	0.55	3.80	2.44	16.86	2.81	6.70	A++
2.0	2.5	5.0			2.00	2.60	5.20			3.20	11.0	0.55	3.80	2.44	16.86	2.85	6.70	A++
2.0	2.5	7.1			1.80	2.34	5.86			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	3.5	3.5			2.00	3.60	3.60			3.20	11.0	0.55	3.80	2.44	16.86	2.72	6.70	A++
2.0	3.5	4.2			2.00	3.60	4.40			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	3.5	5.0			1.85	3.33	4.81			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	3.5	7.1			1.65	2.98	5.37			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	4.2	4.2			1.85	4.07	4.07			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	4.2	5.0			1.72	3.79	4.48			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	4.2	7.1			1.55	3.41	5.04			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	5.0	5.0			1.61	4.19	4.19			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.0	5.0	7.1			1.46	3.80	4.74			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	2.5	2.5			2.60	2.60	2.60			3.20	9.5	0.55	3.80	2.44	16.86	2.81	6.72	A++
2.5	2.5	3.5			2.60	2.60	3.60			3.20	10.0	0.55	3.80	2.44	16.86	2.80	6.72	A++
2.5	2.5	4.2			2.60	2.60	4.40			3.20	11.0	0.55	3.80	2.44	16.86	2.82	6.74	A++
2.5	2.5	5.0			2.50	2.50	5.00			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.74	A++
2.5	2.5	7.1			2.22	2.22	5.56			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	3.5	3.5			2.60	3.60	3.60			3.20	11.0	0.55	3.80	2.44	16.86	2.84	6.73	A++
2.5	3.5	4.2			2.45	3.40	4.15			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	3.5	5.0			2.28	3.16	4.56			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	3.5	7.1			2.05	2.83	5.12			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++

Design information for Vitoclima Multi Split (cont.)

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	4.2	4.2			2.28	3.86	3.86			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	4.2	5.0			2.13	3.61	4.26			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	4.2	7.1			1.93	3.26	4.81			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	5.0	5.0			2.00	4.00	4.00			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
2.5	5.0	7.1			1.82	3.64	4.55			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
3.5	3.5	3.5			3.33	3.33	3.33			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.75	A++
3.5	3.5	4.2			3.10	3.10	3.79			3.20	11.0	0.55	4.10	2.44	18.19	2.86	6.70	A++
3.5	3.5	5.0			2.90	2.90	4.19			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.70	A++
3.5	3.5	7.1			2.63	2.63	4.74			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.70	A++
3.5	4.2	4.2			2.90	3.55	3.55			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
3.5	4.2	5.0			2.73	3.33	3.94			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
3.5	5.0	5.0			2.57	3.71	3.71			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
4.2	4.2	4.2			3.33	3.33	3.33			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
4.2	4.2	5.0			3.14	3.14	3.71			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
4.2	5.0	5.0			2.97	3.51	3.51			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
5.0	5.0	5.0			3.33	3.33	3.33			3.20	11.0	0.55	4.10	2.44	18.19	2.90	6.75	A++
2.0	2.0	2.0	2.0		2.00	2.00	2.00	2.00		3.20	11.0	0.55	4.00	2.44	17.75	2.86	6.80	A++
2.0	2.0	2.0	2.5		2	2.00	2.00	2.60		3.20	11.0	0.55	4.00	2.44	17.75	2.87	6.80	A++
2.0	2.0	2.0	3.5		2.00	2.00	2.00	3.60		3.20	11.0	0.55	4.00	2.44	17.75	2.91	6.80	A++
2.0	2.0	2.0	4.2		1.92	1.92	1.92	4.23		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.80	A++
2.0	2.0	2.0	5.0		1.79	1.79	1.79	4.64		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.80	A++
2.0	2.0	2.0	7.1		1.60	1.60	1.60	5.20		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.70	A++
2.0	2.0	2.5	2.5		2.00	2.00	2.60	2.60		3.20	11.0	0.55	4.00	2.44	17.75	2.88	6.80	A++
2.0	2.0	2.5	3.5		1.96	1.96	2.55	3.53		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.80	A++
2.0	2.0	2.5	4.2		1.82	1.82	2.36	4.00		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.80	A++
2.0	2.0	2.5	5.0		1.69	1.69	2.20	4.41		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.80	A++
2.0	2.0	2.5	7.1		1.53	1.53	1.98	4.96		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.70	A++
2.0	2.0	3.5	3.5		1.79	1.79	3.21	3.21		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.80	A++
2.0	2.0	3.5	4.2		1.67	1.67	3.00	3.67		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.70	A++
2.0	2.0	3.5	5.0		1.56	1.56	2.81	4.06		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.70	A++
2.0	2.0	3.5	7.1		1.42	1.42	2.55	4.61		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.70	A++
2.0	2.0	4.2	4.2		1.56	1.56	3.44	3.44		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.0	4.2	5.0		1.47	1.47	3.24	3.82		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.0	5.0	5.0		1.39	1.39	3.61	3.61		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.5	2.5	2.5		2.00	2.60	2.60	2.60		3.20	11.0	0.55	4.00	2.44	17.75	2.91	6.90	A++
2.0	2.5	2.5	3.5		1.85	2.41	2.41	3.33		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.5	2.5	4.2		1.72	2.24	2.24	3.79		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.5	2.5	5.0		1.61	2.10	2.10	4.19		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.5	2.5	7.1		1.46	1.90	1.90	4.74		3.20	11.0	0.55	4.10	2.44	18.19	2.94	6.90	A++
2.0	2.5	3.5	3.5		1.69	2.20	3.05	3.05		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	2.5	3.5	4.2		1.59	2.06	2.86	3.49		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	2.5	3.5	5.0		1.49	1.94	2.69	3.88		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	2.5	4.2	4.2		1.49	1.94	3.28	3.28		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	2.5	4.2	5.0		1.41	1.83	3.10	3.66		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	2.5	5.0	5.0		1.33	1.73	3.47	3.47		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	3.5	3.5	3.5		1.56	2.81	2.81	2.81		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	3.5	3.5	4.2		1.47	2.65	2.65	3.24		3.20	11.0	0.55	4.10	2.44	18.19	2.96	6.90	A++
2.0	3.5	3.5	5.0		1.39	2.50	2.50	3.61		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.0	3.5	4.2	4.2		1.39	2.50	3.06	3.06		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.0	3.5	4.2	5.0		1.32	2.37	2.89	3.42		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.0	4.2	4.2	4.2		1.32	2.89	2.89	2.89		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	2.5	2.5		2.50	2.50	2.50	2.50		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	2.5	3.5		2.28	2.28	2.28	3.16		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	2.5	4.2		2.13	2.13	2.13	3.61		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	2.5	5.0		2.00	2.00	2.00	4.00		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	2.5	7.1		1.82	1.82	1.82	4.55		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	3.5	3.5		2.10	2.10	2.90	2.90		3.20	11.0	0.55	4.10	2.44	18.19	2.98	6.90	A++
2.5	2.5	3.5	4.2		1.97	1.97	2.73	3.33		3.20	11.0	0.55	4.10	2.44	18.19	2.98	7.00	A++
2.5	2.5	3.5	5.0		1.86	1.86	2.57	3.71		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	4.2	4.2		1.86	1.86	3.14	3.14		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	4.2	5.0		1.76	1.76	2.97	3.51		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	5.0	5.0		1.67	1.67	3.33	3.33		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++

Combination with 2 to 5 indoor units (IDU 1 to 5)					Nominal output (kW)					P system, heating (kW)		Power consumption, system (kW)		System power consumption at 230 V (A)		EER	SEER	ErP
1	2	3	4	5	IDU 1	IDU 2	IDU 3	IDU 4	IDU 5	Min.	Max.	Min.	Max.	Min.	Max.			
2.5	3.5	3.5	3.5		1.94	2.69	2.69	2.69		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	3.5	3.5	4.2		1.83	2.54	2.54	3.10		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	3.5	3.5	5.0		1.73	2.40	2.40	3.47		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	3.5	4.2	4.2		1.73	2.40	2.93	2.93		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
3.5	3.5	3.5	3.5		2.50	2.50	2.50	2.50		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
3.5	3.5	3.5	4.2		2.37	2.37	2.37	2.89		3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.0	2.0	2.00	2.00	2.00	2.00	2.00	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.0	2.5	1.89	1.89	1.89	1.89	2.45	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.0	3.5	1.72	1.72	1.72	1.72	3.10	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.0	4.2	1.61	1.61	1.61	1.61	3.55	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.0	5.0	1.52	1.52	1.52	1.52	3.94	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.5	2.5	1.79	1.79	1.79	2.32	2.32	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.5	3.5	1.64	1.64	1.64	2.13	2.95	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.5	4.2	1.54	1.54	1.54	2.00	3.38	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	2.5	5.0	1.45	1.45	1.45	1.88	3.77	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	3.5	3.5	1.52	1.52	1.52	2.73	2.73	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	3.5	4.2	1.43	1.43	1.43	2.57	3.14	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	3.5	5.0	1.35	1.35	1.35	2.43	3.51	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.0	4.2	4.2	1.35	1.35	1.35	2.97	2.97	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	2.5	2.5	1.69	1.69	2.20	2.20	2.20	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	2.5	3.5	1.56	1.56	2.03	2.03	2.81	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	2.5	4.2	1.47	1.47	1.91	1.91	3.24	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	2.5	5.0	1.39	1.39	1.81	1.81	3.61	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	3.5	3.5	1.45	1.45	1.88	2.61	2.61	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	3.5	4.2	1.37	1.37	1.78	2.47	3.01	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	3.5	5.0	1.30	1.30	1.69	2.34	3.38	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	2.5	4.2	4.2	1.30	1.30	1.69	2.86	2.86	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.0	3.5	3.5	3.5	1.35	1.35	2.43	2.43	2.43	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	2.5	2.5	2.5	1.61	2.10	2.10	2.10	2.10	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	2.5	2.5	3.5	1.49	1.94	1.94	1.94	2.69	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	2.5	2.5	4.2	1.41	1.83	1.83	1.83	3.10	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	2.5	2.5	5.0	1.33	1.73	1.73	1.73	3.47	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	2.5	3.5	3.5	1.39	1.81	1.81	2.50	2.50	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	2.5	3.5	4.2	1.32	1.71	1.71	2.37	2.89	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.0	2.5	3.5	3.5	3.5	1.30	1.69	2.34	2.34	2.34	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	2.5	2.5	2.5	2.00	2.00	2.00	2.00	2.00	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	2.5	2.5	3.5	1.86	1.86	1.86	1.86	2.57	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	2.5	2.5	4.2	1.76	1.76	1.76	1.76	2.97	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	2.5	2.5	5.0	1.67	1.67	1.67	1.67	3.33	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++
2.5	2.5	2.5	3.5	3.5	1.73	1.73	1.73	2.40	2.40	3.20	11.0	0.55	4.10	2.44	18.19	3.00	7.00	A++

Appendix

10.1 Regulations / Directives

Observe the standards and directives applicable to the engineering, installation and operation of the system and in particular the following:

General current regulations and directives

TA Lärm	The [German] technical instructions on noise protection – TA Lärm – must be observed with regard to sound emissions from the outdoor units [or check local regulations].
VDI 2081	Noise reduction in air conditioning systems
VDI 2078	Cooling load calculation of air-conditioned rooms (VDI cooling load regulations)
VDI 2078	Cooling load calculation of air-conditioned buildings with room cooling through cooled walls and ceilings
EN 14511	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling

EN 14825	Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling. Testing and rating at part load conditions and calculation of seasonal performance
(EU) 626/2011	ErP Directive

Electrical regulations

Make the electrical connection and installation compliant with VDE regulations (DIN VDE 0100) [or local regulations] and the technical connection requirements laid down by your local power supply utility.

VDE 0100	Installation of HV systems with rated voltages up to 1000 V
2006/95/EC	Low Voltage Directive
2004/108/EC	EMC Directive
TAB	Technical conditions governing the connection to a low voltage network
	Additional regulations of the relevant local power supply utility
EN 60335-1 VDE 0700-1:2020-08	Household and similar electrical appliances - Safety

Refrigerant-related regulations

EN 8960	Refrigerant, requirements
EN 378	Refrigeration equipment; safety principles for design, equipment and installation; sizing
BGR 500-2-35	Operation of refrigeration equipment, heat pumps and cooling devices
Regulation (EU) No. 517/2014	F-gas regulation

10.2 Engineering checklist

	Yes	No
Single split air conditioning unit		
Multi split air conditioning unit		
Cooling load determined using the calculation sheet (see Vitoclima folder, register "General information")? Split air conditioning units with inverter technology can be sized according to their maximum output. They can deliver up to 130 % of their rated output. ***Note*** *Do not apply the maximum output when sizing if 100 % of the rated output is required due to high internal loads, e.g. in server rooms.*		
Indoor units		
Condensate pump required?		
Can minimum clearances be maintained?		
Can the max. line lengths be maintained?		
Can the max. height differentials be maintained?		
Oil lift bends envisaged (see chapter "Installation of the refrigerant connection line")		
Are the walls and ceilings statically suitable?		
Is the power connection feasible?		
Position of the indoor units so that occupants can be in the return air flow?		
Maximum air velocity of 0.2 m/s can be maintained in living areas?		
Is the air distribution impaired by rising heat emanating from machinery or insolation?		
Outdoor units		
Are the walls, ceilings and roofs statically suitable?		
Can minimum clearances be maintained?		
Positioning so that contamination of the heat exchanger and direct sunlight are excluded?		
Miscellaneous		
Are sound insulation measures in accordance with TA Lärm [or local regulations] required?		
Are all pipelines including the condensate pipe to be thermally insulated in a diffusion-proof manner?		
Is a resistance heater intended for areas at risk from frost to safeguard the reliable draining of condensate?		

Note
The checklist is only intended for information and makes no claim to be complete.
We recommend that all points are carefully checked.

10.3 Glossary

Btu/h
American/British units frequently used for rating air conditioning units.
1 Btu/h $\triangleq$ 0.000293 kW
Standard values:
9000 Btu/h $\triangleq$ 2.6 kW
12000 Btu/h $\triangleq$ 3.5 kW
18000 Btu/h $\triangleq$ 5.3 kW
24000 Btu/h $\triangleq$ 7.0 kW

Ionisation
The indoor air contains positive and negative ions. When there is a predominance of positive ions, the air is considered to be "stale". An integral ioniser generates negative ions, thereby creating a pleasant room climate.

Cooling capacity
Appliance capacity sufficient for cooling a room or a building.
The cooling capacity is subject to the indoor air temperature, the relative humidity in the room and the outside temperature.
The total cooling capacity comprises the sensible and the latent cooling capacity.

Refrigerant
Material with a low boiling point that is evaporated by heat absorption and re-liquefied through heat transfer in a circular process.

Air conditioning
Creation of defined indoor air conditions. To do this it is generally necessary to heat, cool, humidify or dehumidify the ventilation air subject to the prevailing weather conditions.

Circular process
Constantly recurring changes in the condition of a refrigerant by adding and extracting energy in a sealed system.

Cooling load
Total of all heat loads arising inside a room and those exerting an influence on the room from outside, e.g. lamps, people, appliances (TV, PC, etc.), solar radiation and all relevant humid loads.

Latent cooling capacity
That part of the cooling capacity that is required for condensing the water vapour in the air by falling below the dew point, i.e. the capacity required for dehumidifying the air.

Coefficient of performance (COP)
Ratio of heating output and compressor drive output. The coefficient of performance can only be given as a temporary value at a specific operating condition. As the heating output is always greater than the compressor drive output, the COP is always > 1.
Symbol: ε

Energy efficiency ratio (EER)
Ratio of cooling capacity and compressor drive output. It describes the efficiency of an air conditioning unit in cooling mode, so it is similar to COP in heating mode.

Air humidity
- **Absolute humidity**
  States the amount of water vapour per kg of dry air.
  There is always a certain amount of water vapour in the air. This steam remains constant when the air is heated or cooled, provided no water is added, e.g. through people perspiring, or removed, e.g. through condensation.
  Unit: g/kg of dry air
- **Maximum humidity**
  States how many grams of water vapour 1 kg of dry air can absorb before it is saturated. Air has a specific saturation level for each temperature.
  Example for 1 kg:
  At 10 °C it is 7.63 g/kg.
  At 30 °C it is 27.18 g/kg.
  Unit: g/kg
- **Relative humidity**
  Ratio of absolute humidity to maximum humidity
  Unit: %
  The relative humidity value indicates what percentage of the maximum possible amount of moisture the air actually contains. As warmer air can hold more water vapour than cooler air, the relative humidity drops when the air is warmed and the absolute humidity remains constant.

Rated power consumption
The max. possible electrical power consumption of the air conditioning unit in constant operation under defined conditions. This value is only relevant for the connection to the power supply and is stated by the manufacturer on the type plate.

Sensible cooling capacity
That part of the cooling capacity that must be used for cooling the air without condensation of the water vapour contained in the air.

Evaporator
Heat exchanger in which the refrigerant evaporates by absorbing heat from the environment. Evaporation is the transition from a liquid to a gaseous physical state.

Compressor
Machine for the mechanical transportation and compression of vapours and gases. Differentiation according to the type of construction.

Condenser
Heat exchanger in which the refrigerant condenses by giving off heat to the environment. Condensation is the transition from a gaseous to a liquid physical state.

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Keyword index

Vitoclima

Keyword index

VITOCLIMA