



► **Ultra Allround**
Unit heaters

Ultra Allround

Ceiling unit for heating, cooling, ventilation
of large high-end interiors

► **Technical Catalogue**

KAMPMANN



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Ultra Allround:

Ceiling-mounted unit for heating, cooling, and ventilation of large, high-end interiors. Meets the most exacting demands in terms of design and comfort.





01 Product information



Ultra Allround – maximum efficiency meets innovative design

For sustainable heating and cooling from a height of seven metres

Air is directed to where it is needed by innovative technology that changes over the air stream direction for heating or cooling.

Ultra Allround ceiling units can be configured for heating and/or cooling and are used to recirculate air or for primary ventilation in:

- > retail chains
- > exhibition spaces and retail areas
- > entrance vestibules
- > retail outlets
- > industry
- > rooms with a ceiling height of up to seven metres

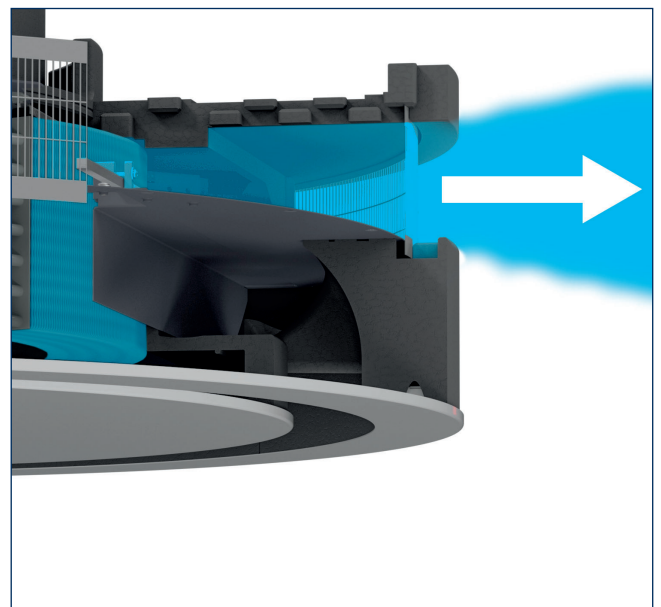
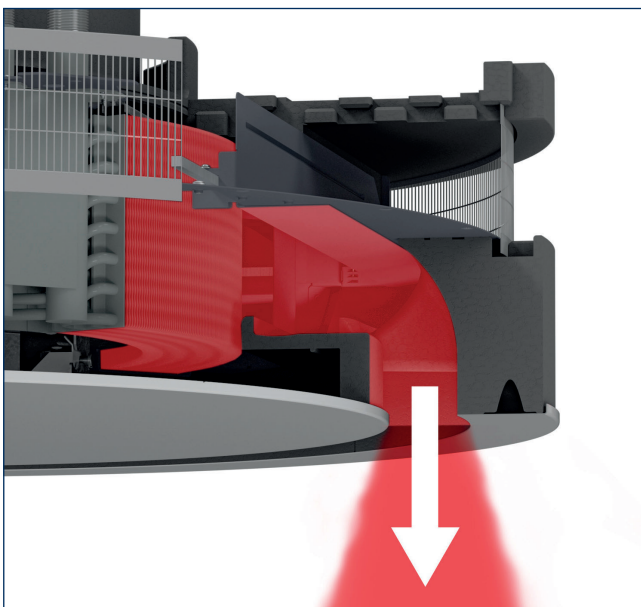
The Ultra Allround product range is available in two sizes. The overall installation height of both units is only 515 mm. The two sizes produce different outputs.

Operating principle

Air is drawn in via the radial fan and blown through the circular heat exchanger into the room.

In heating mode, warm air is discharged vertically into the room, and in cooling mode it is distributed horizontally.

The heat exchangers are precisely configured for low-temperature operation to achieve the maximum energy-efficient outputs.

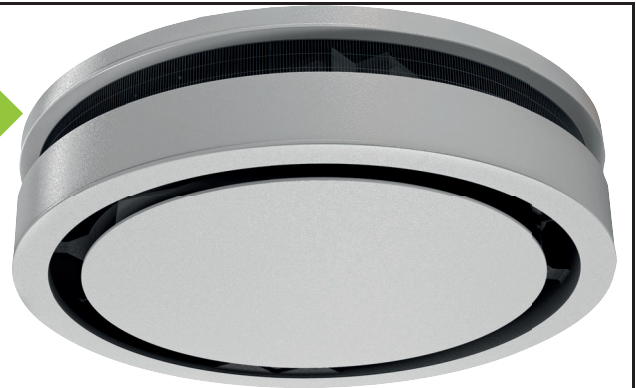


Product data



Product benefits

- ▶ Design unit for modern ceiling architecture
- ▶ Motorised changeover between heating and cooling
- ▶ Radial fan with energy-efficient EC technology complies with ErP requirements
- ▶ Identical design of unit for recirculation air, mixed air or primary air mode, whether heating or cooling units
- ▶ EPP housing components with sheet steel casing, thus lighter weight



Features

- ▶ Installation heights of up to 7.0 m are possible
- ▶ Blends into the interior design, fully or partially encased, as required
- ▶ Energy costs can be saved by minimal temperature stratification
- ▶ For all large spaces with high ceilings and passing traffic
- ▶ Suitable for use with heat pumps

Installation	▶ Ceiling-mounted
Air stream	▶ Recirculating air
Heating	▶ LPHW
Cooling	▶ CHW ▶ Refrigerants (on request)
Hybrid Eco	▶ In conjunction with primary air spigot (optional)
KaControl	▶ Optionally integrated

Performance data

Heat output [kW]¹⁾ > 9.1 – 51.8

Sound pressure level, heating > 6 – 56
[dB(A)]²⁾

Sound power level, heating > 22 – 72
[dB(A)]

Cooling output [kW]³⁾ > 4.0 – 22.9

Sound pressure level, cooling > 11 – 57
[dB(A)]²⁾

Sound power level, cooling > 27 – 73
[dB(A)]

¹⁾ at LPHW 75/65 °C, $t_{r1} = 20$ °C

²⁾ The sound pressure levels were calculated with an assumed room insulation of 16 dB(A). This corresponds to a distance of 3 m, a room volume of 2000 m³ and a reverberation time of 1.0 s (in accordance with VDI 2081).

³⁾ at CHW 7/12 °C, $t_{r1} = 27$ °C, 48% relative humidity

Operating limits

- ▶ Max. operating pressure: 16 bar
- ▶ Max. entering water temperature: 95 °C
- ▶ Min. entering water temperature heating: 35 °C
- ▶ Min. entering water temperature cooling: 4 °C
- ▶ Max. air inlet temp.: 40 °C
- ▶ Max. glycol volume: 50 %

Applications

Buildings of all kinds, which are to be ideally heated and ventilated with centralised or decentralised control.



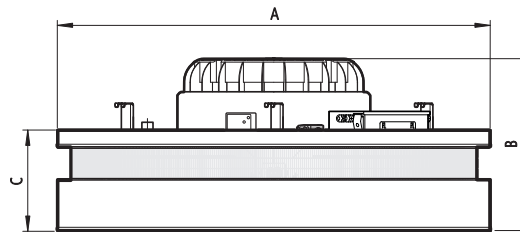
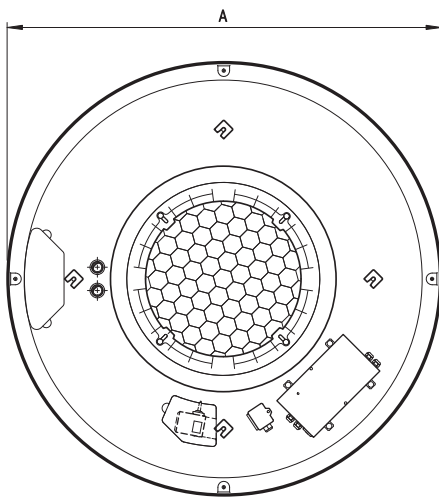
Selection guide

Model size	Diameter (A) [mm]	Dimensions Height (B) [mm]	Height (C) [mm]	Heat exchanger model copper/aluminium					
				Heat output ¹⁾ [kW]	Air flow, heating [m ³ /h]	Sound power level, heating [dB(A)]	Cooling output ²⁾ [kW]	Air flow, cooling [m ³ /h]	Sound power level, cooling [dB(A)]
1	1300	516	300	9.1 – 42.2	560 – 3480	22 – 71	4.0 – 18.2	590 – 3670	28 – 71
2			350	10.3 – 51.8	630 – 3880	27 – 72	4.5 – 22.9	670 – 4140	27 – 73

¹⁾ at LPHW 75/65 °C, $t_{L1} = 20$ °C

²⁾ at CHW 7/12 °C, $t_{L1} = 27$ °C, 48% relative humidity

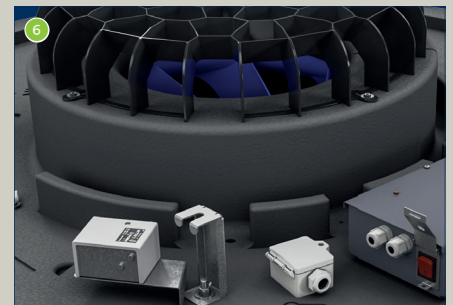
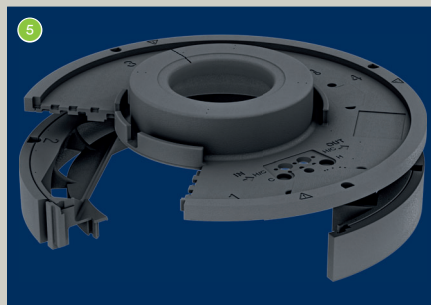
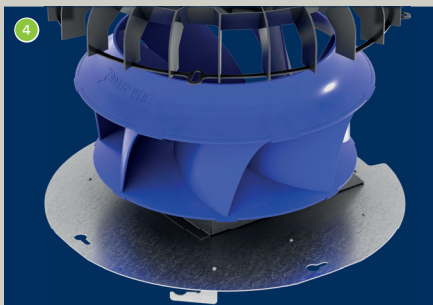
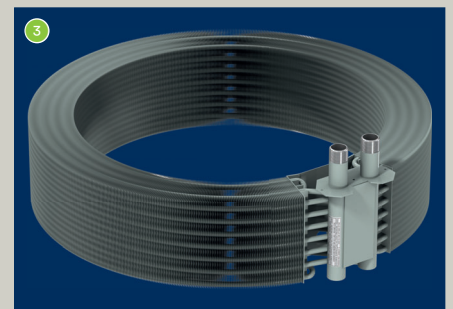
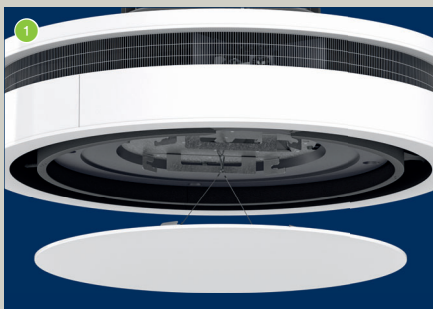
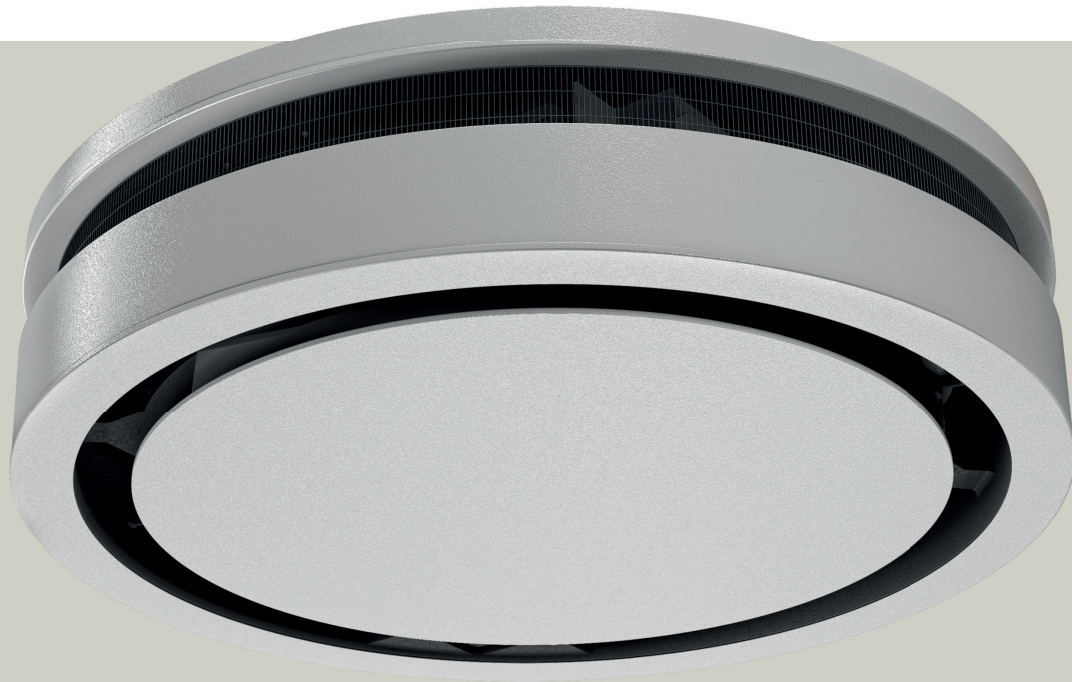
Technical drawing (Dimensions in mm)



Ultra Allround at a glance

VDI 6022
conformity
confirmed





1 Base panel

- > Can be removed without a tool by briefly turning it, fitted with a fall guard

2 Plastic condensate tray with condensate pump

- > Maintenance-friendly, thanks to external pump sump with outlet spigots
- > Can be easily removed by means of quick-release mechanism with insertion nut
- > Condensate pump and pump sump can be accessed from above through an inspection opening

3 Heat exchanger

- > Steel collector and manifold, corrosion-proof, suitable for LPHW up to 90 °C and 16 bar continuous operating pressure
- > Connections led out through the top of the unit
- > Suitable for low temperature heating systems

4 Radial fan

- > Infinitely-variable EC radial fan
- > Highly efficient due to aerodynamic design of blade geometry
- > Type of motor protection: IP 54

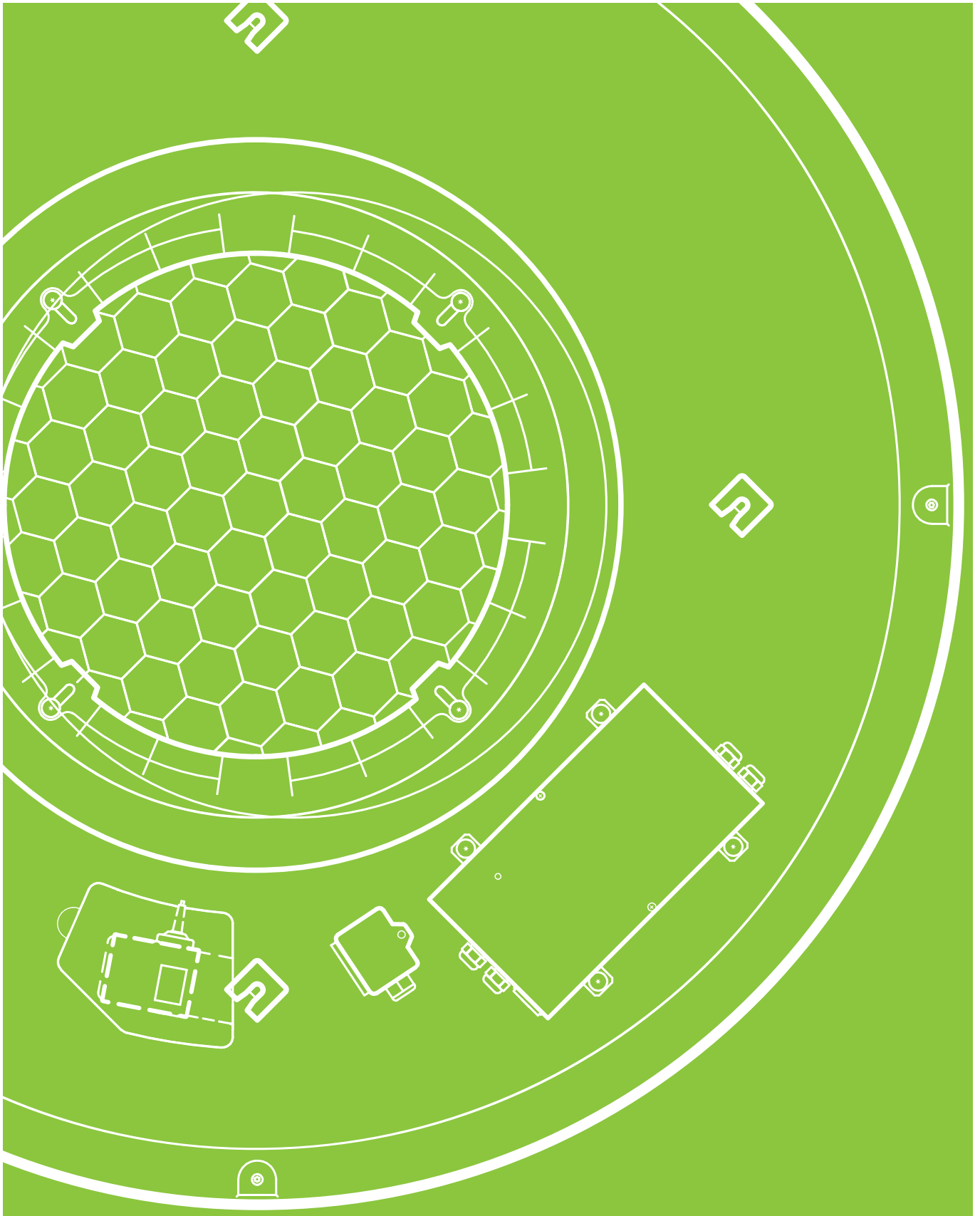
5 EPP housing

- > EPP housing for optimum air routing
- > Up to 80 kg lighter
- > Air routing with organic shape
- > Fully recyclable

6 Inflow nozzle and tamper protection

- > Optimised oncoming air flow of fan
- > Finger guard

02 Technical data



Notes on measuring conditions

The heat outputs were determined in accordance with DIN EN 16430 “Fan-assisted radiators, convectors and trench convectors” and the cooling outputs in accordance with DIN EN 1397:2022 “Heat exchangers - Hydronic room fan coil units - Test procedures for establishing the performance”.

Heat outputs

DIN EN 16430 regulates the performance measurements specifically of fan-assisted radiators and trench convectors under normal operating conditions based on DIN EN 442 “Radiators and convectors”.

- > Part 1 “Technical specification and requirements”
- > Part 2 “Test method and performance data”

Cooling outputs

The specific requirements for cooling mode are taken into account in DIN EN 1397. They are also based on Eurovent certification.

Normative reference:

- > EN 16583; Determining the sound power levels of noise sources
- > EN 45001; General criteria for the operation of test laboratories
- > ISO 5801; Industrial fans; Performance testing using standardised airways
- > ISO 5221; Air distribution and air diffusion; Rules for methods of measuring air flow rate in an air handling duct

The air intake temperature of the fan coil is selected as the reference/air temperature, which should not be confused with the room temperature. In practice, the units are positioned as sill units along the façade. Due to the temperature stratification that occurs, the air intake temperature differs from the room air temperature (measured at a height of 1.5 m).

Acoustics

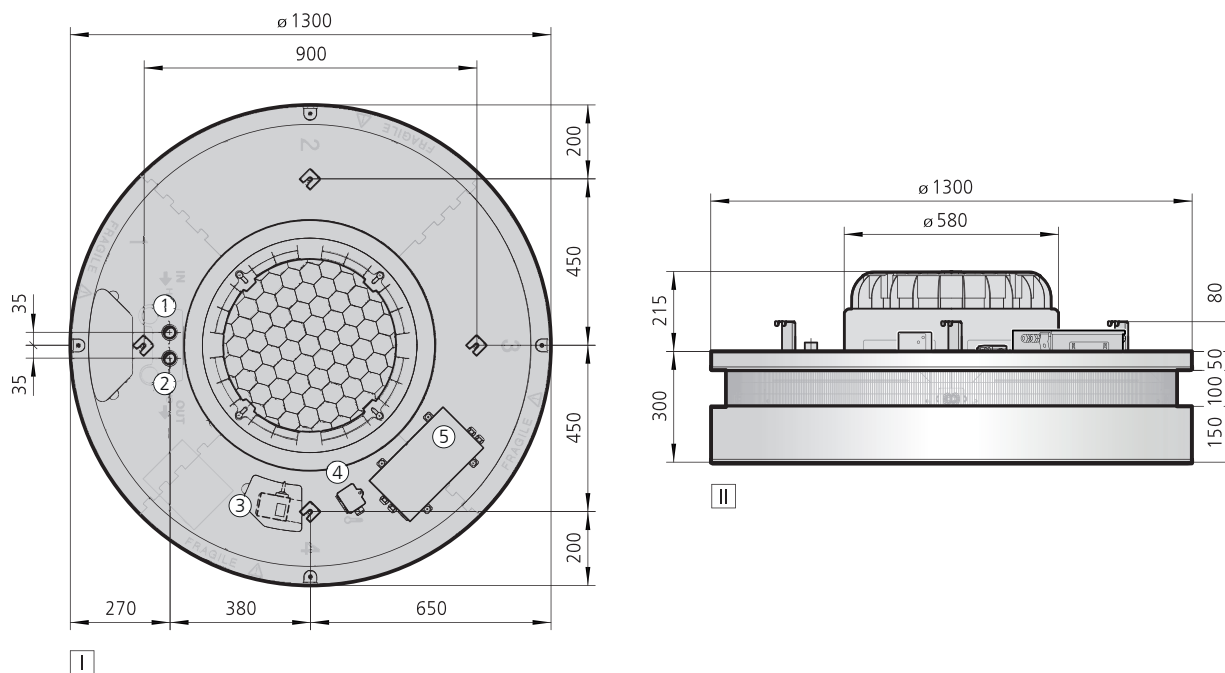
Fan coils are very often used in acoustically sensitive areas. The units have therefore been optimised in terms of sound emissions. The acoustic data was recorded in accordance with the provisions of DIN EN 16583 by DIN EN ISO 3744 and DIN EN ISO 3741 in the Kampmann laboratories. A room attenuation of 8 dB(A) is assumed when specifying the sound pressure level.

Ultra Allround

Unit design heating or cooling

Model size 1

Technical drawing (Dimensions in mm)



View

- I top view
- II side view

Further information

- ① Flow
- ② Return
- ③ frost protection thermostat (optional)
- ④ supply air temperature sensor
- ⑤ Electrical junction box

Specifications

Type	Housing	Weight [kg]	Water content [l]	Connection
354000174258**	partially cased	58	3.3	1"
354001174258**	fully cased	61	3.3	1"

Performance data

Model size	Control voltage	Heating						Cooling						Nominal fan speed	Power consumption	Current consumption	Throw	Max. mounting height
		Air flow	SFP value	Heat output ¹⁾	Outlet air temperature	Sound pressure level ²⁾	Sound power level	Air flow	SFP value	Cooling output, total ³⁾	Outlet air temperature	Sound pressure level ²⁾	Sound power level					
	[V]	[m ³ /h]	[Ws/m ³]	[kW]	[°C]	[dB(A)]	[dB(A)]	[m ³ /h]	[Ws/m ³]	[kW]	[°C]	[dB(A)]	[dB(A)]	[1/min]	[W]	[A]	[m]	[m]
1	10	3480	275	42.2	56.5	55	71	3670	260	18.2	15.5	55	71	956	266	1.2	4.6	8.6
	8	2750	176	35.1	58.5	48	64	2900	167	15.2	14.9	49	65	755	134	0.6	3.6	7.0
	6	2020	106	27.4	60.9	40	56	2130	100	11.9	14.1	41	57	554	59	0.3	2.7	5.4
	4	1290	62	18.9	64.2	29	45	1360	59	8.2	12.9	29	45	353	22	0.2	1.8	3.9
	2	560	65	9.1	69.2	6	22	590	61	4.0	11.2	12	28	152	10	0.1	1.5	2.5

Use our calculation tools on our website to easily calculate heat outputs and other technical data with just a few clicks!

► <https://www.kampmanngroup.com/hvac/products/unit-heaters/ultra-allround#Calculate-performance-data>

¹⁾ at LPHW 75/65 °C, $t_{r1} = 20$ °C

²⁾ The sound pressure levels were calculated with an assumed room insulation of 16 dB(A). This corresponds to a distance of 5 m, a room volume of 3000 m³ and a reverberation time of 2.0 s (in accordance with VDI 2081).

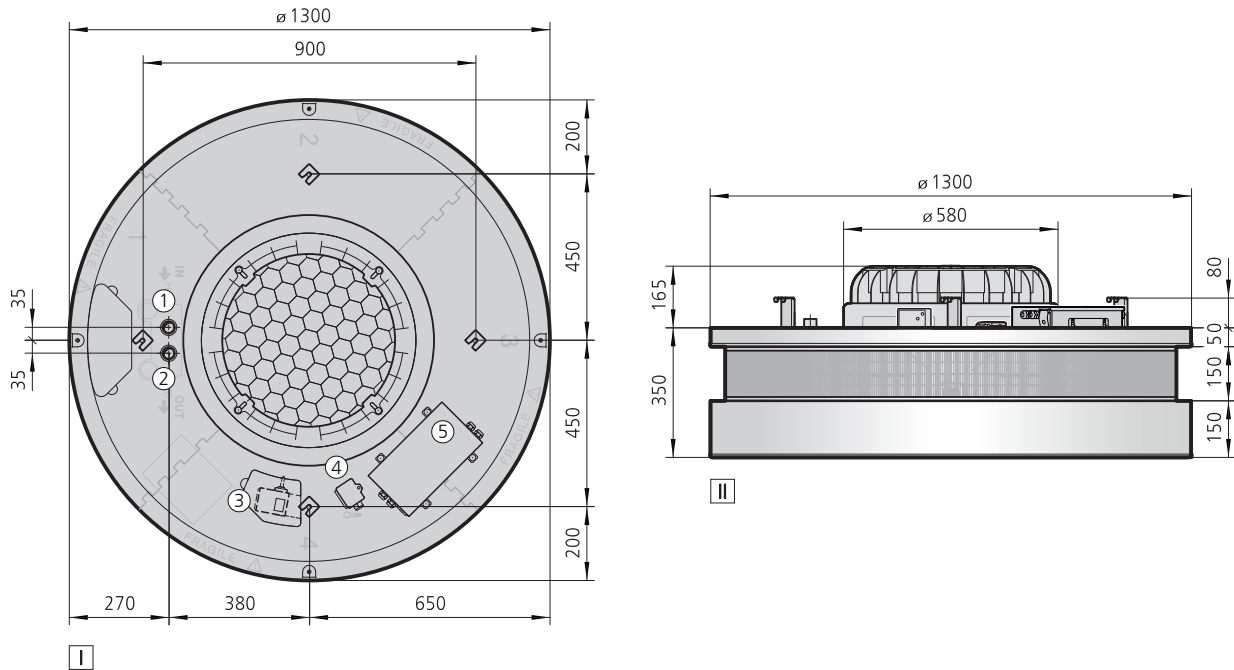
³⁾ at CHW 7/12 °C, $t_{r1} = 27$ °C, 48% relative humidity

Ultra Allround

Unit design heating or cooling

Model size 2

Technical drawing (Dimensions in mm)



View

- I top view
- II side view

Further information

- ① Flow
- ② Return
- ③ frost protection thermostat (optional)
- ④ supply air temperature sensor
- ⑤ Electrical junction box

Specifications

Type	Housing	Weight [kg]	Water content [l]	Connection
354000274258**	partially cased	77	3.5	1"
354001274258**	fully cased	80	3.5	1"

Performance data

Model size	Control voltage	Heating						Cooling						Nominal fan speed	Power consumption	Current consumption	Throw	Max. mounting height
		Air flow	SFP value	Heat output ¹⁾	Outlet air temperature	Sound pressure level ²⁾	Sound power level	Air flow	SFP value	Cooling output, total ³⁾	Outlet air temperature	Sound pressure level ²⁾	Sound power level					
	[V]	[m ³ /h]	[Ws/m ³]	[kW]	[°C]	[dB(A)]	[dB(A)]	[m ³ /h]	[Ws/m ³]	[kW]	[°C]	[dB(A)]	[dB(A)]	[1/min]	[W]	[A]	[m]	[m]
2	10	3880	249	51.8	60.1	56	72	4140	233	22.9	14.2	57	73	959	268	1.2	4.9	9.0
	8	3070	159	42.3	61.5	49	65	3270	149	18.7	13.7	50	66	758	136	0.6	3.9	7.3
	6	2250	96	32.5	63.3	40	56	2410	90	14.4	13.2	41	57	557	60	0.3	2.9	5.7
	4	1440	56	21.9	65.7	28	44	1540	53	9.7	12.4	29	45	356	23	0.2	1.9	4.1
	2	630	58	10.3	69.5	11	27	670	54	4.5	11.4	11	27	155	10	0.1	1.5	2.6

Use our calculation tools on our website to easily calculate heat outputs and other technical data with just a few clicks!

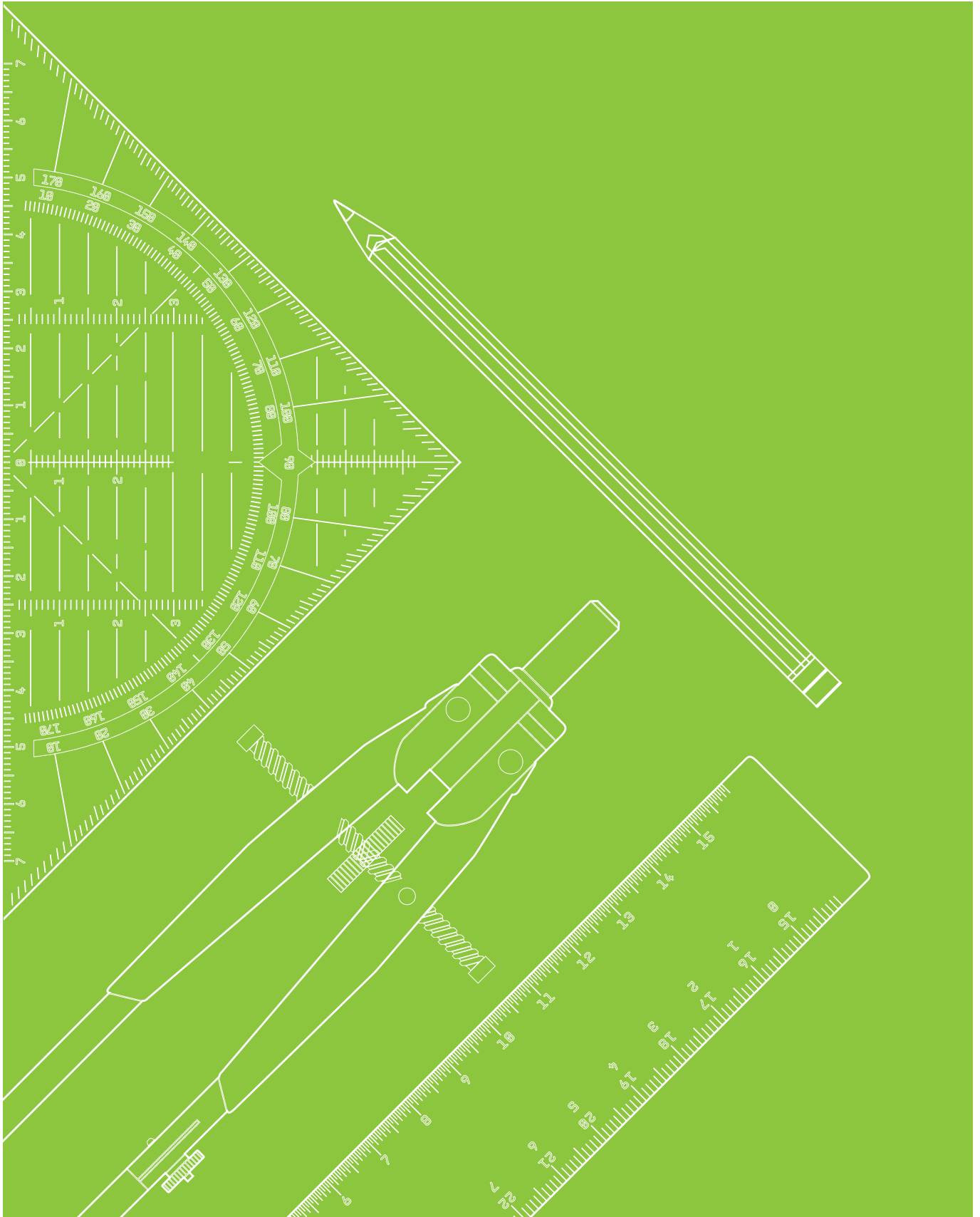
► <https://www.kampmanngroup.com/hvac/products/unit-heaters/ultra-allround#Calculate-performance-data>

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³⁾ at CHW 7/12 °C, $t_{r1} = 27$ °C, 48% relative humidity

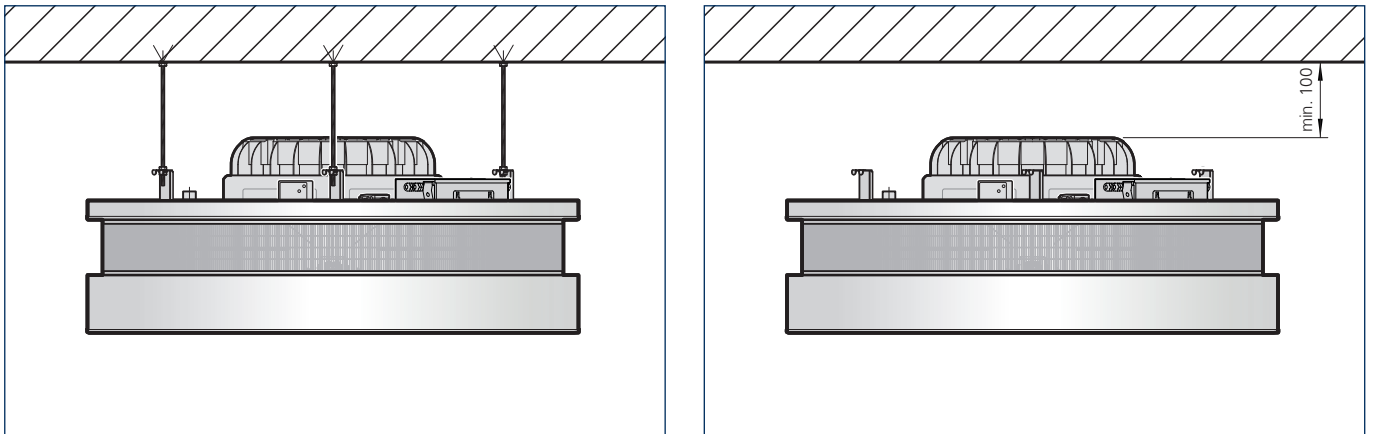
03 Planning information



Installation

The units are installed on-site using threaded rods or wire cables. They need to be suspended at a height of at least 100 mm from the ceiling.

Their packaging can be used to protect the units during the construction phase, and prevent the ingress of dust.



Unit configuration

The selection and configuration of the units depends on more than just the calculated heat load. The structural and acoustic conditions and unit-specific properties need to be taken into consideration, among other things.

The units required are determined based on the usual standards and guidelines.

The required number, size and design stage are calculated based on the:

- > Calculated heat demand
- > Maximum mounting height
- > Sound levels to be adhered to
- > Structural conditions, such as occupied zones, installation points, furnishings and fittings

Maximum installation height – Throw

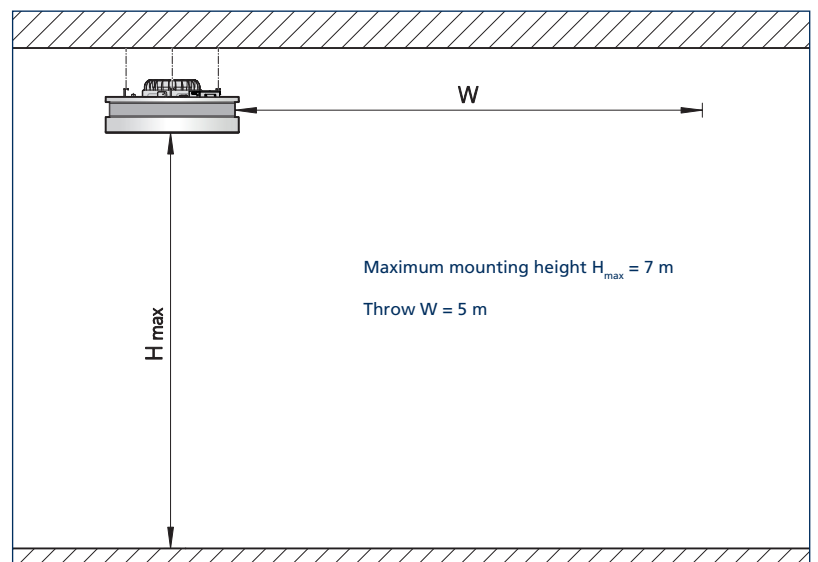
The maximum installation height and especially the throw are directly dependent on the

- > Shape of the room
- > Overtemperature of the air volume flow
- > Organisation of the space
- > Air volume flow

The throw of the Ultra Allround is defined as the maximum horizontal penetration depth of the primary air stream under ideal conditions.

These values are for guidance only, as the throw is highly dependent on the room geometry, equipment and uplift caused by higher air discharge temperatures.

The maximum mounting height H_{\max} is seven metres.



Model for cooling mode

This special model is suitable for heating operation with LPHW and cooling operation using CHW.

A condensate tray is also integrated in the underside of the unit below the heat exchanger. The tray has a tank in which condensate accumulates, is located near the connections and is accessible from above.

Only two pipes, the supply and return, are routed to the Ultra Allround (2-pipe system). A chiller for CHW is required depending on the system. The changeover between heating and cooling is triggered centrally.

The control technology manages the discharge direction setting for heating (vertical) and cooling (horizontal).

The pipes and fittings must be insulated and installed in accordance with the guidelines for refrigerant lines.

In cooling mode, the radial fan can be operated at maximum speed (10 V) even below the dew point.

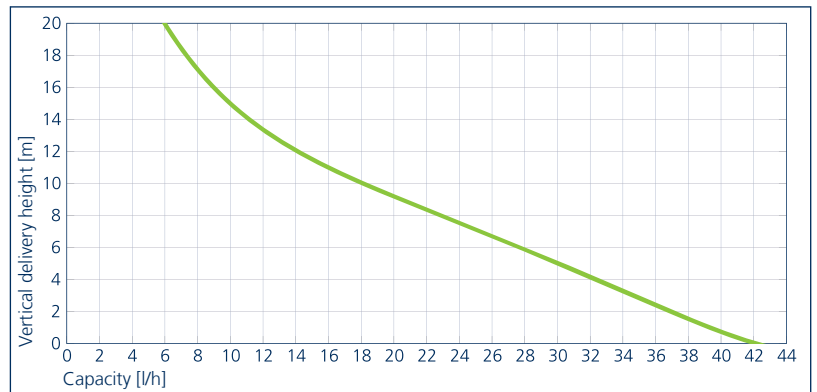
Drips are not anticipated due to the special design of the unit.

Condensate pump

The self-priming condensate pump is connected to the hose connector for the on-site condensate pressure line. The condensate pump is installed directly in the pump sump and can be accessed through an inspection opening on the top of the unit. No tool is needed for this.

The pump can also be accessed from underneath the unit by removing the lower cover, making it exceptionally maintenance-friendly.

Maximum delivery height	20 m
Flow rate	42 l/h
Supply voltage	230 V/50 Hz
Power consumption	8 W
Condensate pressure line	6.25 mm inner diameter
Conformity	UK 778



Sound power level – Sound pressure level

The large-sized fans with low base speeds can be operated with extremely low noise levels. Nonetheless, take into account the permissible sound pressure level in your configuration. Troublesome noises can occur specifically at higher fan speeds. Determine the design fan speed depending on the type of room.

We recommend checking the building approval requirements for the maximum permissible sound levels before starting the planning. Other standards and regulations, e.g. DIN EN 15251, DIN EN 13779, Workplace Directive, VDI 2082, etc. are also frequently cited in this context. The base sound level in a room plays a major role in the subjective perception of the source of the sound or the increased sound level. We would therefore recommend first measuring the base sound level to determine the permitted sound pressure level of the Ultra Allround. If the sound pressure level of the unit is below the room level, then the overall sound level will change only imperceptibly. However, if only very low sound levels are permitted, we would recommend designing the units so that the required output can be achieved at lower fan speeds.

Information on the A-rated total sound levels and sound pressure levels can be found in the technical data tables. The enveloping surface method as per DIN 45635 was used to calculate the sound power level needed to determine the difference in level using the comparison method.

The sound pressure level data is based on the measurements of the sound power level in a low-reflection room with average sound absorption at a distance of 3 m at an angle of 45° from the air outlet without a duct connection. The stated values can differ in practice as the actual sound pressure level in the room largely depends on the acoustic properties of the space, on reflections, duct connections, etc.

Hybrid ECO System

Air exchange separate from temperature control for comfort and efficiency

Large public spaces, workshops and retail stores are nowadays not only heated and air conditioned by fan heaters, but can also be supplied with outside air. In this configuration, the exhaust air is discharged out of the building by means of natural overflow in accordance with the ErP Directive (EU) 1253/2014 without recovering the heat contained in it. This results in high energy costs.

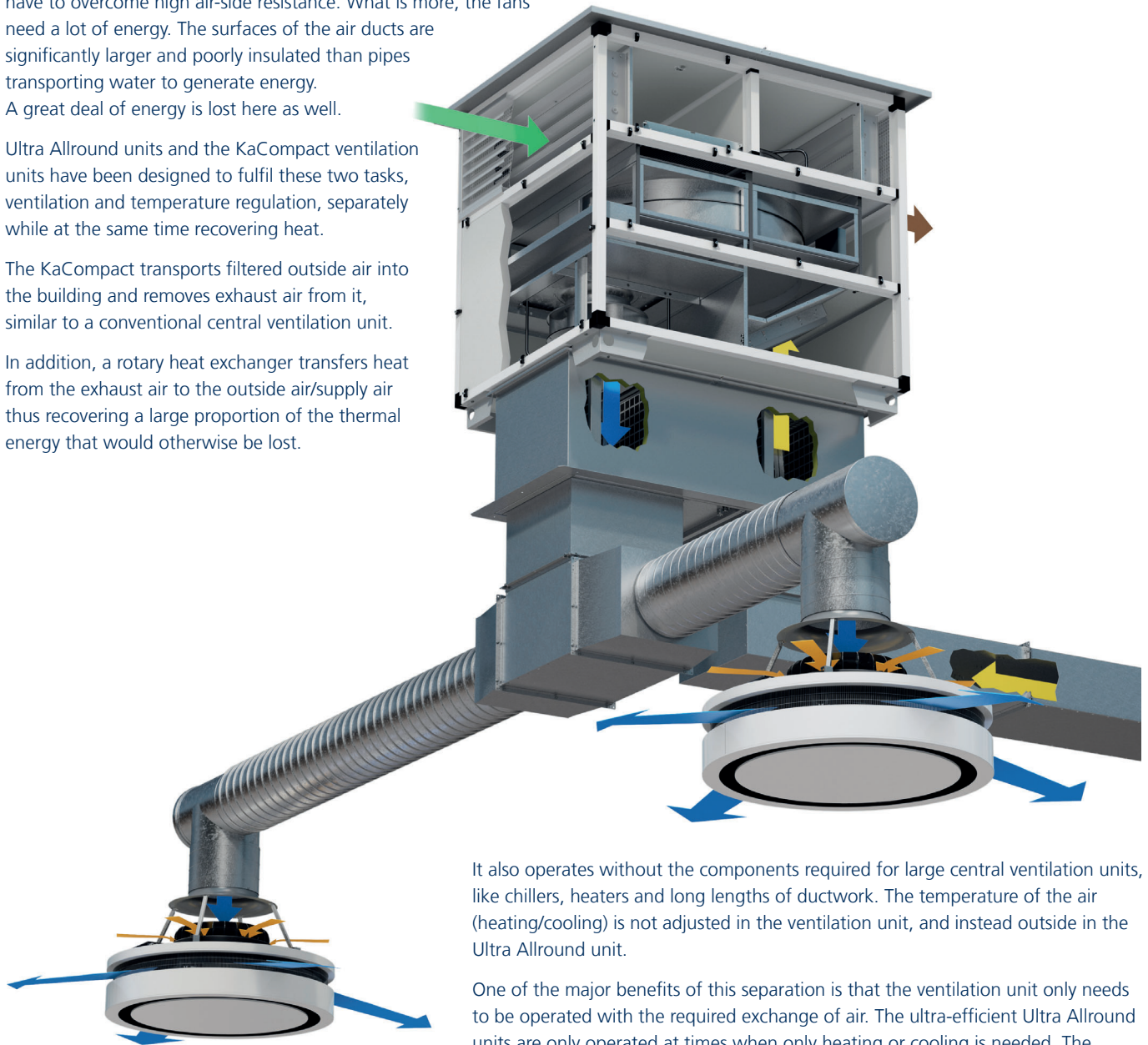
Unlike simple fans that supply fresh air to a building, ventilation units with heat recovery function offer the benefit of recovering heat from the exhaust air which is then used to heat the incoming air in accordance with the ErP Directive (EU) 1253/2014.

If these units have an integral heating and cooling function, their many accessory components and long lengths of ductwork mean that they have to overcome high air-side resistance. What is more, the fans need a lot of energy. The surfaces of the air ducts are significantly larger and poorly insulated than pipes transporting water to generate energy. A great deal of energy is lost here as well.

Ultra Allround units and the KaCompact ventilation units have been designed to fulfil these two tasks, ventilation and temperature regulation, separately while at the same time recovering heat.

The KaCompact transports filtered outside air into the building and removes exhaust air from it, similar to a conventional central ventilation unit.

In addition, a rotary heat exchanger transfers heat from the exhaust air to the outside air/supply air thus recovering a large proportion of the thermal energy that would otherwise be lost.



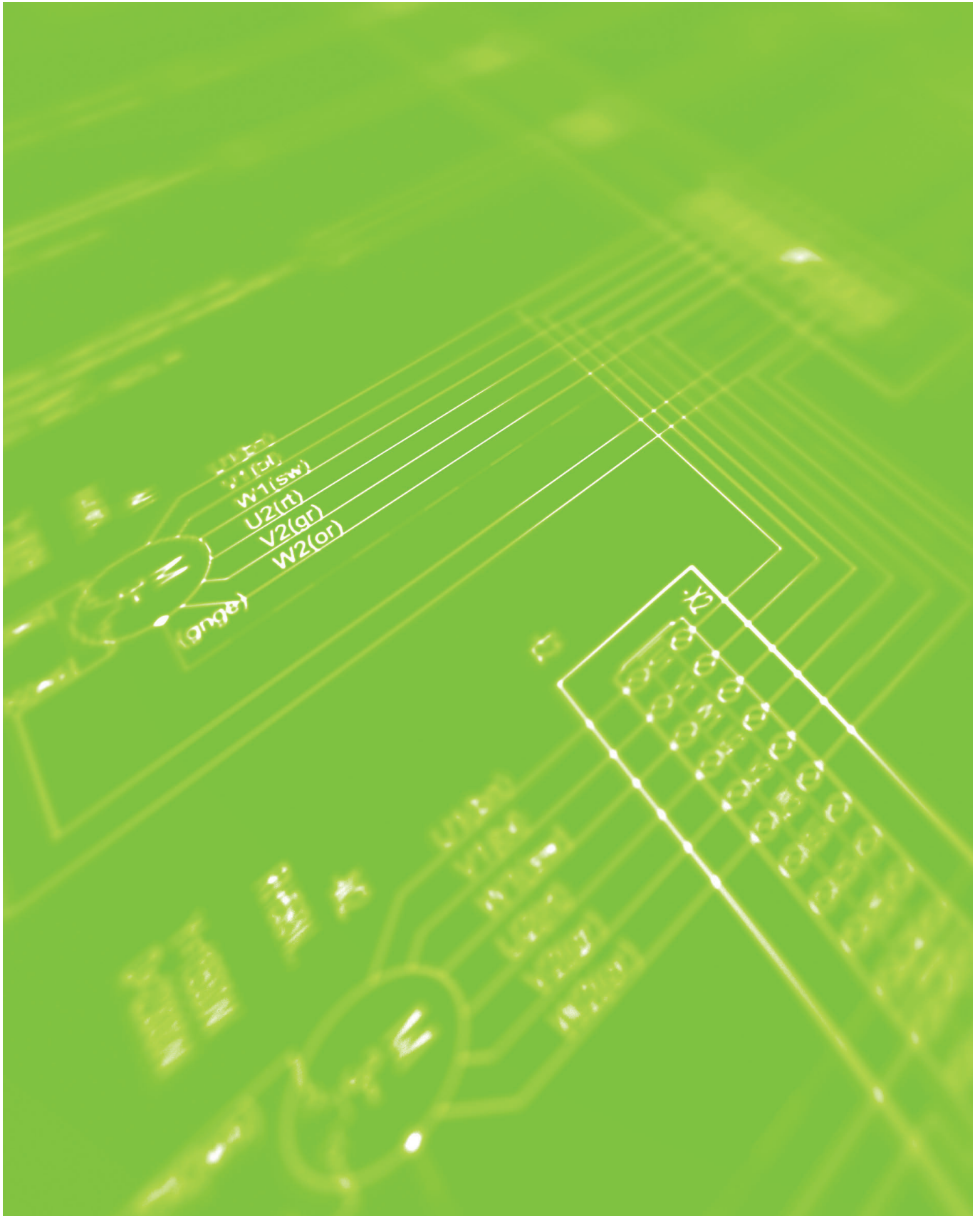
It also operates without the components required for large central ventilation units, like chillers, heaters and long lengths of ductwork. The temperature of the air (heating/cooling) is not adjusted in the ventilation unit, and instead outside in the Ultra Allround unit.

One of the major benefits of this separation is that the ventilation unit only needs to be operated with the required exchange of air. The ultra-efficient Ultra Allround units are only operated at times when only heating or cooling is needed. The energy-saving principle of the separation of functions is referred to as "Hybrid ECO" at Kampmann and has been used by many customers for many years.

The air handling units are extremely important in this system and have the characteristics of "fresh air fans" by meeting the following criteria:

- > Heat recovery via a rotary heat exchanger
- > Energy-saving infinitely variable EC fans for precise adjustment of the air quantity
- > KaControl OUTS control panel for control of the ventilation units and Ultra Allround units

04 Control technology



Description of Ultra Allround electromechanical version (*00)

Product features

In electromechanical versions, all factory-fitted actuators are wired to the terminal on the PCB. Irrespective of the control, 24 V DC valve actuators are required, which also need to be connected to the terminals of the PCB. The valve actuators on the PCB can either be controlled with 230 V AC or 24 V DC. A condensate alarm is accompanied by forced closing of the cooling valve. The appropriate terminals on the circuit board are available on site for valve actuators or a condensate pump. With the “motorised adjustment” version, the air discharge is controlled vertically/horizontally when the heating/cooling changes over.

Fans

The infinitely variable speed of the EC fans can be controlled by a 0–10 V DC signal. The “intelligent” motor electronics detect any possible motor malfunction and automatically switch off the fan. A condensate alarm and cooling changeover are indicated by the associated LED on the PCB. Motor fault and condensate alarm contacts (30 V / 2 A) for external evaluation are also available on the circuit board.

Control units

Various control units are available for operation and control.

Speed controller, type 30510

Infinitely variable speed controller for use in conjunction with a thermostat for room temperature-dependent two-point control of heating or cooling units in closed rooms. The fan speed is set manually on the speed controller at between 0-100%. The thermostats activate the ventilation units at the pre-set speed depending on the temperature. Solutions are available using timer programs (type 30056; type 30076) to enable automatic changeover between day and night mode.



Room thermostat, type 30155 (heating and cooling)

- > 2- and 4-pipe applications, thermal valve actuators 230 V AC Open/Closed, normally closed
- > ABS plastic housing, functional and rugged design in pure white similar to RAL 9010 for surface-mounting on in-wall box or surface-mounting using a surface-mounted frame (accessory)
- > Simple operation using a large rotary knob for temperature setting with mechanical range limitation of the temperature setpoint, operating mode selector switch standby, manual fan, automatic fan, 3-stage switch for pre-selecting the fan speed when the operating mode selector switch is in the “Manual fan” position
- > Control input for heating/cooling changeover with 2-pipe systems
- > Control input can either be set to Comfort/ECO or ON/OFF changeover
- > Room frost protection function < 5 °C heating valve open, fan stage 3
- > Optional use of the internal or external room temperature sensor (accessory)
- > Parallel operation of a maximum of five units is possible



Clock thermostat, type 30256

Clock thermostat for fan speed control for on-wall installation with a low-key design appearance

- > 2- and 4-pipe applications, thermal valve actuators 230 V AC Open/Closed, normally closed
- > ABS plastic housing, rugged design, pure white, similar to RAL 9010, for surface-mounting on in-wall box, can be integrated in switch product range with dimensions 50 x 50 mm
- > Display with adjustable backlight
- > Operated by four sensor buttons
- > Timer with automatic summer/winter changeover
- > Control input for heating/cooling changeover with 2-pipe systems
- > Control input can either be set to Comfort/ECO or ON/OFF changeover
- > Unit frost protection function < 5 °C valve(s) open, optional use of the internal or external room temperature sensor (accessory)
- > Parallel operation of a maximum of five units is possible



Climate controller type 148941, type 148942, type 148943, type 148944

The climate controller is a control unit with a high-quality glass surface finish

- > 2- and 4-pipe applications, thermal valve actuators 230 V AC Open/Closed, normally closed
- > 2.5" LCD display
- > High-quality glass surface finish with capacitive keys
- > LED ring acts as key feedback
- > Selection of the value to be displayed (room temperature, setpoint, setpoint offset)
- > Automatic LED backlight
- > Optional use of the internal or external room temperature sensor (accessory)
- > Room temperature control
- > Programmable room frost protection function $RT < 8\text{ °C}$ = heating valve open, fan stage 1
- > Programmable unit frost protection function $RT < 4\text{ °C}$ = valve(s) open, fan off
- > Standby mode
- > Eco/Day changeover
- > Manual or automatic mode
- > Functions are indicated in the display
- > Alarms are indicated in the display
- > Timer program with three timer channels, each with four switching points
- > Cleaning mode
- > Programmable language: German or English
- > Modbus RTU slave interface for connection to higher-level building automation system (only with type 148943 and type 148944)
- > Three control inputs with type 148941 and type 148942, and two control inputs with type 148943 and type 148944 (Programmable functions, e.g. window contact, occupancy detection, heating/cooling changeover), external room sensor
- > Password-protected programming level
- > Surface-mounted on in-wall box
- > Pure white (type 148941 and type 148943) or black (type 148942 and type 148944)
- > Up to five units can be operated in parallel



Electronic speed controller, type 30515

The infinitely variable electronic compact controller is suitable for operation of up to ten recirculating air units (2-pipe heating/cooling) with EC fans to heat or cool rooms. The controller has a closed-loop temperature control, which works with a fan and shut-off valve. The temperature setpoint can be set for day and night. A digital timer, including day, night and week program, is also included. The enclosed room sensor is installed separately. A mean value can be generated as an option using two or four room sensors. Apart from the infinitely variable automatic speed control, the fan speed can also be manually set. In addition, the control includes a frost protection function, an external enable and a potential-free operating and group fault alarm. If required, the fan can also be used exclusively for air circulation without heating or cooling.



Operation using on-site systems

Control via analogue and digital signals is also possible as an alternative to the Kampmann control units.

The following analogue and digital inputs and/or outputs are needed:

- > Speed control via a 0-10 V VDC signal, the fan starts up safely at 1.5 V VDC
- > Control input to detect any possible motor fault
 - > *Only required with electro-mechanical model*
- > Control input to detect any pending condensate alarm
 - > *Only with electro-mechanical version with condensate pump*
- > Analogue or digital signals (24 V DC or 230 V AC) to control the valve drive depending on the drive design
- > Digital signals (potential-free) for heating/cooling changeover and associated vertical/horizontal air deflection
 - > *Air deflection is only possible with the version with motorised adjustment*

Description of control of Ultra – KaControl version

The all-inclusive solution!

Product features

Units with KaControl are supplied ex works fully wired with all electrical components ready for connection (apart from optional accessories). The integrated powerful programmable KaControl microprocessor control covers all the necessary functions of the Ultra Allround.

The “face” of the KaControl is the KaController control unit. A group of up to two units can be formed using a KaController control unit without the additional effort required to assign addresses. Optional plug-in interface cards are available for connection to higher-level control systems.

Fans

The speed of the EC fans used in the units is controlled by a 0-10 V DC signal from the KaControl. “intelligent” motor electronics detects possible motor malfunctions and automatically switches off the fan. If a motor in the unit to which the KaController is connected malfunctions, this is displayed on the KaController.

Control unit

Various versions of the KaController control unit are available for operation and control.

KaController

The KaController offers maximum operating convenience with a large-format display, one-touch operation and optional side function keys for quick access. Due to the “no frills” principle, even untrained users can intuitively get to grips with the control options.

The displays are language-independent using pictograms. The basic functions can easily be adjusted via the KaController.

Product features

- > Plastic housing, colour similar to RAL 9010 (type 196003210001 and 196003210002) or black (type 196003210006) for surface-mounting on in-wall box or surface-mounted frame (accessory)
- > High-quality design of room control units, with large-format LCD multifunctional display with energy-saving, automatically switching LED backlight
- > Push-turn navigator dial with endless turn/detent function
- > Side function keys for quick access (only with type 196003210002)
- > Individually adjustable basic display
- > Display of fault alarms
- > Integrated weekly switching program
- > Password-protected programming level
- > Integrated temperature sensor

Important! A separate room temperature sensor is always required for the version supplied in an industrial housing.

KaControl control function

The programmable KaControl microprocessor control offers a wealth of functions. The following functions which are necessary for the Ultra Allround product are set at the factory:

- > 2- and 4-pipe applications, thermal valve actuators 24 V DC Open/Closed, normally closed
- > Room temperature control with 2-point valve control and demand-based fan control in automatic mode or optional fixed stage selection
- > Room frost protection function $RT < 8\text{ °C}$ = heating valve open, fan stage 1, unit frost protection function $RT < 4\text{ °C}$ = valve(s) open, fan off
- > Optional use of the internal or external room temperature sensor (accessory)
- > An alarm from the unit (e.g. motor malfunction or condensate alarm) is detected by the KaControl and indicated via the KaController
- > Control input for heating/cooling changeover with 2-pipe systems



Type 196003210001



Type 196003210002









Type 196003210006



Type 196003214002





05 ▶ Ordering information

Accessories






Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
Control accessories KaControl					
	KaController	with one-button operation, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Temperature setting range 8 - 35 °C, Colour similar to RAL 9010 pure white, made of resistant PVC, Type 3210001	86 x 52 x 86	all units with control option KaControl -C1	196003210001
	KaController	with one-button operation, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Temperature setting range 8 - 35 °C, Colour similar to RAL 9017 traffic black, made of resistant PVC, Type 3210006	86 x 52 x 86	all units with control option KaControl -C1	196003210006
	KaController	with side operating keys, 24 V wall-mounted room control unit, with integral room temperature sensor, Protection class IP 30, Temperature setting range 8 - 35 °C, Colour similar to RAL 9010 pure white, made of resistant PVC, Type 3210002	86 x 52 x 86	all units with control option KaControl -C1	196003210002
	Industry KaController	industrial housing with hinged transparent cover, lockable, with side operating keys, Surface-mounted, Protection class IP 65, Colour grey, made of plastic, Type 3214002	200 x 110 x 195	all units with control option KaControl -C1, ProtecTor Door Air Curtains	196003214002
	Room temperature sensor	Wall-mounted, Surface-mounted, Protection class IP 30, Colour similar to RAL 9010 pure white, made of plastic, Type 3250110 Is the KaController installation site suitable for a temperature measurement? - If it is not suitable, e.g. behind a curtain, then a KaControl room temperature sensor should be chosen for each group!	101 x 110 x 23	all units with KaControl -C1 and climate controller art. no. 19600014894*	196003250110
	Outside temperature sensor/industrial temperature sensor	Surface-mounted, Protection class IP 65, Colour similar to RAL 9010 pure white, Type 3250112	63 x 68 x 57	all units with control option KaControl -C1, ProtecTor Door Air Curtains	196003250112

CONTINUED ▶

Accessories




Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Clip-on pipe sensor	to detect the medium temperature, Protection class IP 67, Temperature setting range -20 - 70 °C, Colour black, Type 3250115 Is there a risk of frost, e.g. due to the ingress of cold air – if so, then a KaControl clip-on pipe sensor should be chosen for each unit! heating/cooling changeover function only in conjunction with 3-way valve!	5 x 6 x 3000	all units with KaControl -C1 and climate controller art. no. 19600014894*	196003250115
	Serial KNX card	for integration into a KNX/EIB network, interface PCOS00KNXN0, Type 3260702 The communication card slots into the free interface on the PCB.	35 x 20 x 80	all units with control option KaControl -C1	196003260702
	Serial CANbus card	to increase the number of units in a single-circuit system from 7 to a maximum of 30 units, one required per unit, Extension of the cable length from the first to the last unit from 30 m to 500 m, Can only be used with the KaControl -C1 control version!The room temperature cannot be recorded by a room sensor when using CanBus cards., Type 3260301	35 x 30 x 60	all units with control option KaControl -C1	196003260301
	Serial Modbus card	Type 3260101 Required for each device for connection to KaControl panels or on-site Modbus networks. The communication card slots into the free interface on the PCB.	31 x 12 x 61	all units with control option KaControl -C1	196003260101

Accessories



Article	Article	Properties	Dimensions [mm]	Suitable for	Article no.
Control accessories electromechanical 230 V					
	Room thermostat	Heating/Cooling, 2- and 4-pipe, 3-stage. Only in conjunction with valves/valve kits with actuator, with OFF/Manual/Automatic fan switchover, 230 V AC, Open/Closed, Surface-mounted, Protection class II, Protection class IP 30, Temperature setting range 5 - 30 °C, Colour similar to RAL 9010 pure white, Type 30155 optional connectible, remote sensor art. no. 196000148921 can optionally be connected, clip-on sensor art. no. 196000148922	110 x 111 x 26	EC units electromechanical, 5 Kathern HK Trench Technology, 5 TOP, Ultra or Ultra Allround Unit Heaters, 5 Venkon or PowerKon LT Fan Coils, 5 KaCool D AF, KaCool W or KaDeck Fan Coils	196000030155
	Clock thermostat	Heating/Cooling, 2- and 4-pipe, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, 1 W, flush-mounted, Protection class II, Protection class IP 30, Colour similar to RAL 9010 pure white, Type 30256 optional connectible, remote sensor art. no. 196000148921 can optionally be connected, clip-on sensor art. no. 196000148922	85 x 46 x 81	EC units electromechanical, 5 TOP, Ultra or Ultra Allround Unit Heaters, 5 Venkon Fan Coils, 5 KaCool D AF, KaCool W or KaDeck Fan Coils	196000030256
	Speed controller	continuously variable fan operation, 0-100% presettable, On/Off via room thermostat, surface-mounted protection class IP 54, flush-mounted protection class IP 44, 230 V AC, 0-100%, Surface-mounted, Protection class IP 54, Colour similar to RAL 9010 pure white, made of plastic, Type 30510	82 x 82 x 68	EC units electromechanical, 2 ProtecTor Door Air Curtains, 5 UniLine or Tandem Door Air Curtains, 10 TOP or Ultra Unit Heaters, 10 Venkon Fan Coils, 2 KaCool D AF or KaCool W AC Fan Coils	196000030510
	Electronic speed controller	microprocessor-controlled control with integrated digital timer, with day, night, week programme, continuously variable fan operation 0 to 100 %, manual or automatic, 0-10 VDC, recirculation air, 230 V AC, Protection class I, Protection class IP 40, including sensor IP 66, Type 30515	262 x 277 x 153	EC units electromechanical, 10 TIP, TOP or Ultra Unit Heaters, 10 Venkon Fan Coils, 2 KaCool D AF or KaCool W Fan Coils	196000030515
	Climate Controller	Heating/Cooling, 2- and 4-pipe, Without Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9010 pure white, Type 148941	78 x 140 x 15	EC units electromechanical, 4 Kathern HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148941

CONTINUED ▶

Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		
	Climate Controller	Heating/Cooling, 2- and 4-pipe, Without Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9004 signal black, Type 148942	78 x 140 x 15	EC units electromechanical, 4 Kathern HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148942
	Climate Controller	Heating/Cooling, 2- and 4-pipe, with Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9010 pure white, Type 148943	78 x 140 x 15	EC units electromechanical, 4 Kathern HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148943
	Climate Controller	Heating/Cooling, 2- and 4-pipe, with Modbus, only with valves/valve kits, continuously variable, with LCD operating menu and integrated timer program, 230 V AC, Open/Closed, Surface-mounted, Protection class IP 30, Temperature setting range 0 - 50 °C, Colour similar to RAL 9004 signal black, Type 148944	78 x 140 x 15	EC units electromechanical, 4 Kathern HK Trench Technology, 4 KaCool D AF, KaCool W, Venkon or KaDeck Fan Coils, 4 Ultra Allround Unit Heaters	196000148944



Thermostats

	Industrial thermostat	with setpoint adjustment by tool, with setpoint adjustment by tool, Protection class I, Protection class IP 54, Temperature setting range 5 - 30 °C, Type 30058	113 x 71 x 158	Unit Heaters, ProtecTor Door Air Curtains	196000030058
	Industrial thermostat	with setpoint adjustment using a dial, with setpoint adjustment using a dial, Protection class I, Protection class IP 54, Temperature setting range 40 °C, Type 30059	113 x 71 x 158	Unit Heaters, ProtecTor Door Air Curtains	196000030059

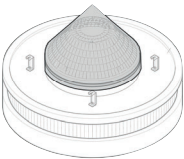
Accessories

Article	Article	Properties	Dimensions	Suitable for	Article no.
			[mm]		

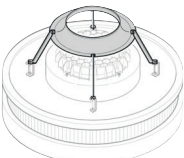
Valves

	Thermoelectric shut-off valve	as an angled valve with angled screw connection and thermoelectric actuator 24 V AC/DC / 50 Hz, 24 V AC/DC, Connection 1", kvs value 3.3 m³/h, Max. operating pressure 10 bar, Type 30931 Only in conjunction with a KaControl controller!	200 x 50 x 300		196000030931
	Control shut-off valve	24 V AC/DC, for automatic flow and temperature control, Connection 1", kvs value 3.1 m³/h, Max. operating pressure 25 bar, Type 30980	140 x 120 x 140	Model size 4 - 5, TOP or Ultra Unit Heaters, Flow volume Cooling (min./max.) 250 - 1800 l/h, DN 20	196000030980
		24 V AC/DC, for automatic flow and temperature control, Connection 1", kvs value 4.1 m³/h, Max. operating pressure 25 bar, Type 30981	140 x 120 x 140	Model size 4 - 6, TOP or Ultra Unit Heaters, Flow volume Cooling (min./max.) 400 - 2500 l/h, DN 25	196000030981




Filter

	Recirculating air filter element	for direct mounting on the unit inlet with recirculation air units, ISO Coarse 50% (G3) filter		Model size 1 - 2	354000070003
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Galvanised steel components

	Primary air-pipe connector	Round, for the suction-side connection of the Ultra Allround to a round primary air pipe, sendzimir galvanised		Model size 1 - 2	354000070004
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Additional colours

	surcharge for RAL standard colour	Price per unit.		Ultra Allround Unit Heaters, partially cased	354007010011
				Ultra Allround Unit Heaters, fully cased	354007010012
	surcharge for RAL colour of your choice	Minimum quantity = 7 units per order and colour, The number of units below the minimum quantity must be requested and calculated separately. Price per unit.		Ultra Allround Unit Heaters, partially cased	354007010021
				Ultra Allround Unit Heaters, fully cased	354007010022
	surcharge for change of colour	of the powder-coating to the colour version quoted., The surcharge includes the conversion and cleaning of the powder-coating to the requested colour and will be charged once per project and call-off order.		Ultra Allround Unit Heaters	354007010010

Kampmann GmbH & Co. KG
Friedrich-Ebert-Str. 128–130
49811 Lingen (Ems)
Germany

+49 591 7108660
info@kampmanngroup.com

