



# ALPENKLANG

Compact air handling unit



# Contents

<b>Alpenklang quality</b> .....	Page 3
Functional description	
Applications	
<b>Mountair Alpenklang Vertical</b> .....	Page 4
drawing and dimensions of top nozzle	
Technical specifications	
<b>Mountair Alpenklang Horizontal</b> .....	Page 6
Dimensional drawing and dimensions of lateral nozzle	
Technical specifications	
<b>Special model direct current</b> .....	Page 8
Dimensional drawing and dimensions	
Technical specifications	
<b>EC fans</b> .....	Page 10
<b>Plate heat exchanger heat recovery system</b> .....	Page 10
The counterflow plate heat exchanger	
The enthalpy plate heat exchanger	
<b>Standardised filter cells</b> .....	Page 11
<b>Panel fillings</b> .....	Page 11
<b>Options for Alpenklang</b> .....	Page 11
<b>Regulation</b> .....	Page 12
Specifications of Siemens Synco	
<b>Regulation</b> .....	Page 13
Specifications for Siemens PXC4	
<b>Regulation</b> .....	Page 14
Diagram	
Siemens Synco regulation specification	
<b>Definition of regulation</b> .....	Page 15
<b>References</b> .....	Page 16
<b>Release for commissioning</b>	
<b>Siemens regulation</b> .....	Page 18
<b>Quote enquiry Alpenklang</b> .....	Page 19

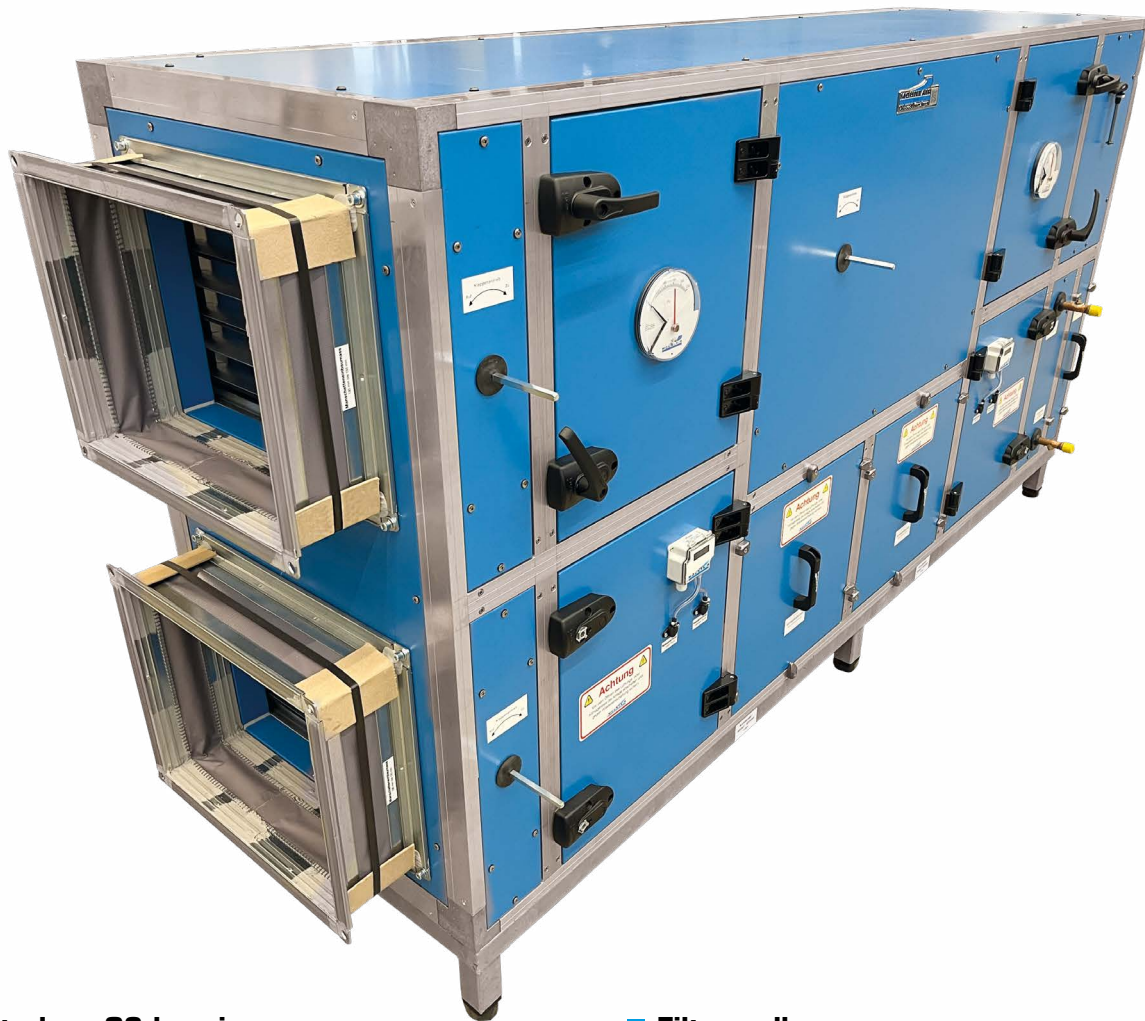
## Alpenklang quality

### Functional description

Highly efficient heat recovery via plate heat exchangers (aluminium, hygroscopic membrane). The warm and cold air flows are directed past each other in the counterflow plate heat exchanger, whereby the heat is transferred. In the transition area or in case of frost, a partial airflow of outside air is directed past the exchanger (regulated by bypass flap). Additional heating if required with pump warm water (PWW) and optional cooling. Fans with EC motors for needs-adjusted air volumes. Temperature regulation via the compact controller with electrical control box.

### Applications

Fresh air systems in restaurants, kitchens and homes. Ventilation of storage and cellar rooms. Simple office ventilation, school buildings, sports halls and cloakrooms.



#### ■ First class S2 housing

Classification per DIN EN 1886 (2009) / ISO 14000 L1 housing leakage

T2 heat transition / TB2 thermal bridging factor  
Bee-Board-Isolation for Minergie® P-Eco

#### ■ Siemens Synco controller

Compact AHU with controls  
Connection to the control system (BUS)

#### ■ EC fans

Continuous and efficient as per ErP 2015

#### ■ Filter cells

Energy efficiency class A as per filter test norm ISO 16890

ePM1 ≥ 70% / F7- 450

ePM1 ≥ 90% / F9- 450

#### ■ Hygienic design

To be cleaned in accordance with VDI 6022

#### ■ Energy recovery

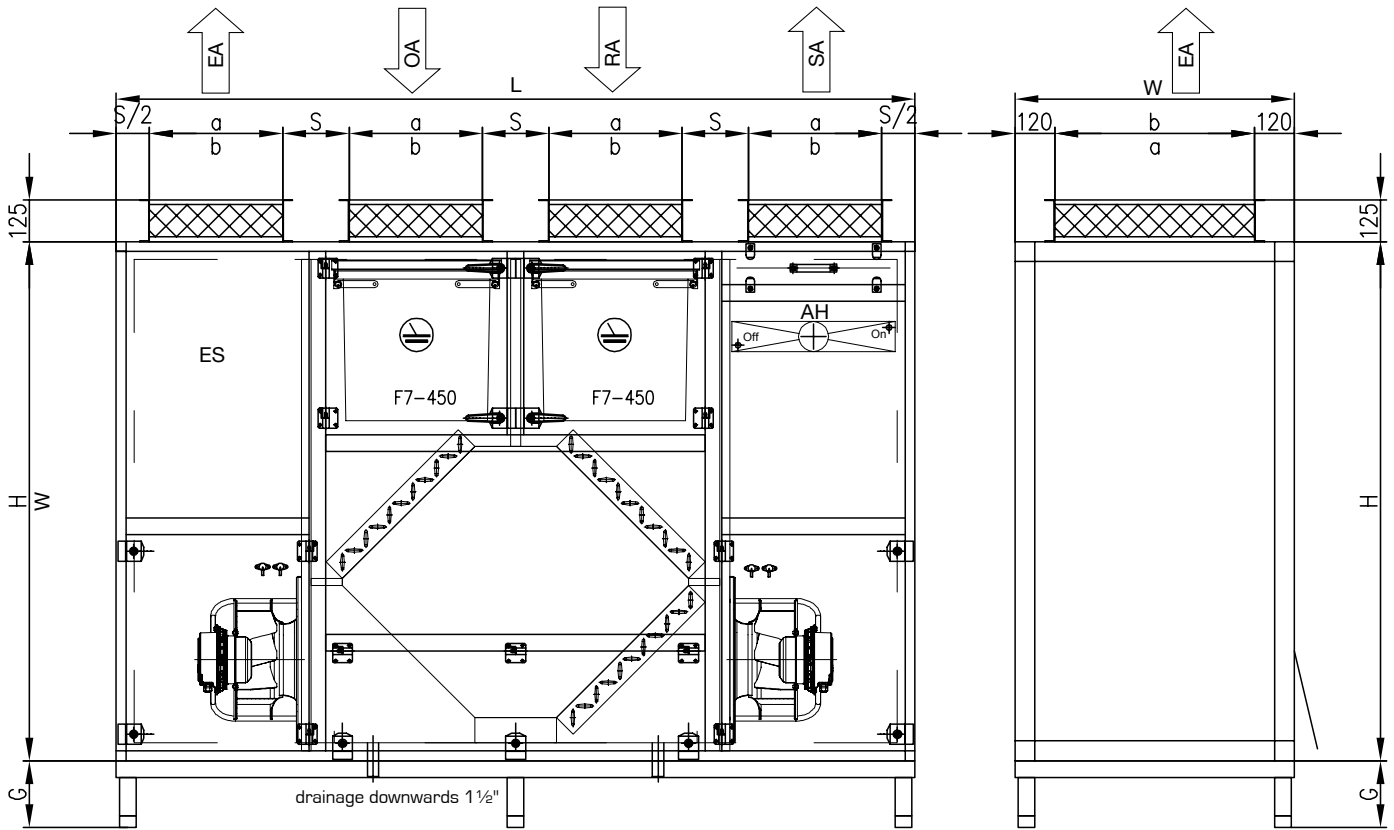
Highest recovery thanks to counterflow heat exchanger

Optional humidity recovery

Corresponds to Minergie® P

# Mountair Alpenklang Vertical

## Dimensional drawing and dimensions of top nozzle



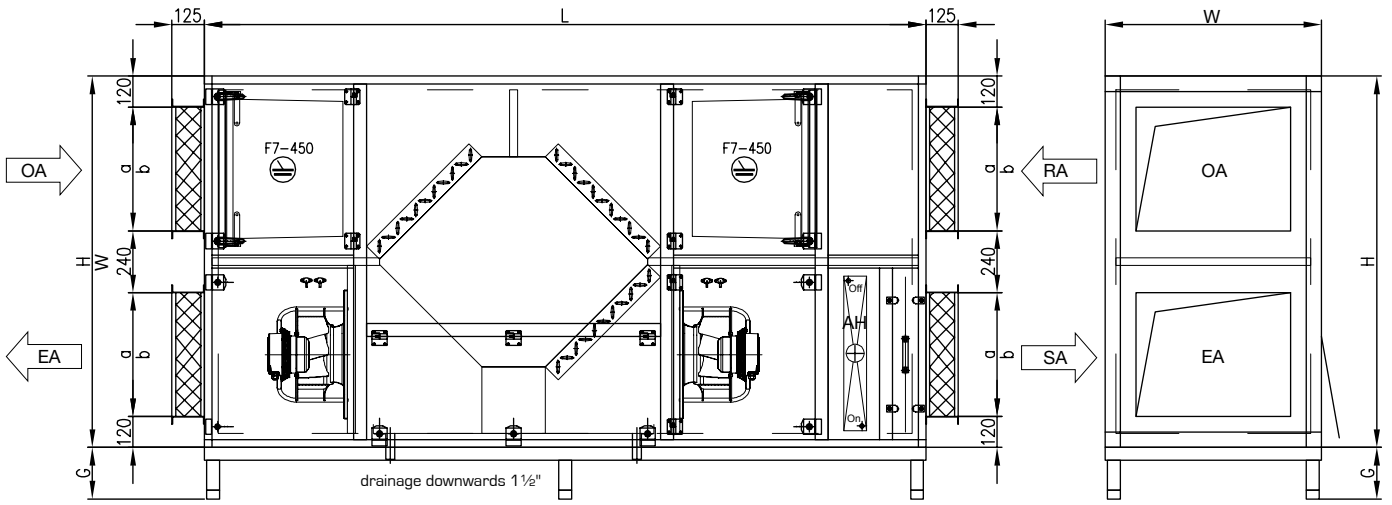
BASIC DEVICE, ONE-PIECE		A1	A2	A3	A4	A5
Air volume flow m <sup>3</sup> /h		800	1300	2000	3500	5000
Dimensions mm	H (Höhe)	1360	1460	1560	1760	1760
	B (Breite)	620	720	840	1080	1440
	L (Länge)	1700	2000	2400	2800	2800
	s	200	200	200	220	220
Base frame mm	G	200	200	200	200	200
Connections		SBM 30				
Outside air insulated	a × b	225 × 380	300 × 480	400 × 600	480 × 840	480 × 1200
Supply air	a × b	225 × 380	300 × 480	400 × 600	480 × 840	480 × 1200
Exhaust air	a × b	225 × 380	300 × 480	400 × 600	480 × 840	480 × 1200
Outgoing air insulated	a × b	225 × 380	300 × 480	400 × 600	480 × 840	480 × 1200
Condensate connecting piece	DN	40 (1 1/2")				
Electrical connection		1 × 230 V	1 × 230 V	1 × 230 V	3 × 400 V	3 × 400 V

## Technical specifications

DEVICE SIZE	A1	A2	A3	A4	A5
Air flow rate at 2 m/s	800 m <sup>3</sup> /h	1300 m <sup>3</sup> /h	2000 m <sup>3</sup> /h	3500 m <sup>3</sup> /h	5000 m <sup>3</sup> /h
Static pressure ext.	250 Pa	250 Pa	250 Pa	250 Pa	250 Pa
<b>Fan</b>	ebm Papst				
Type, incl. EC motor with commutation unit	K3G250 0.50 kW	K3G280 0.50 kW	K3G280 0.75 kW	VBH0355 1.5 kW	VBH0400 3.60 kW
Connection	1 × 230 V	1 × 230 V	1 × 230 V	3 × 400 V	3 × 400 V
Specific fan power	SFP 3				
<b>Heat recovery</b>	Belimo damper motor, external drive axle				
Size	CR2-53-450	CR2-67-530	CR2-81-630	CR2-95-830	CR2-95-1140
Heat recovery coefficient, humid	88,0 %	88,0 %	87,0 %	87,0 %	86,0 %
Performance	7,4 kW	12 kW	18,4 kW	31,9 kW	45,4 kW
Pressure loss	101 Pa	124 Pa	143 Pa	178 Pa	186 Pa
Outside air	-11 °C / 90 % r.F.				
Room exhaust air temperature	22 °C / 40 % r.F.				
<b>Air heater</b> incl. Frost protection	Supply air 15 - 22 °C				
Air heater output	1,8 kW	2,9 kW	4,5 kW	7,7 kW	11,0 kW
Pump hot water	VL 40 °C / RL 30 °C				
Water quantity	0,15 m <sup>3</sup> /h	0,25 m <sup>3</sup> /h	0,38 m <sup>3</sup> /h	0,67 m <sup>3</sup> /h	0,96 m <sup>3</sup> /h
<b>Filter</b> Filter class	Unifil: TW1_70 A+450-H-10T (old: F7), energy class A+ Differential pressure filter display, 0 - 250 Pa				
Filter size	<u>300 × 300</u>	<u>300 × 600</u>	<u>400 × 600</u>	<u>300 × 600</u> <u>600 × 600</u>	<u>2 Stk.</u> <u>600 × 600</u>
Filter type	305/2	305	420	305 + 610	2 × 610
<b>External air and outgoing air sectional damper</b>	in the device Belimo damper motor, external drive axle				

# Mountair Alpenklang Horizontal

## Dimensional drawing and dimensions of lateral nozzle



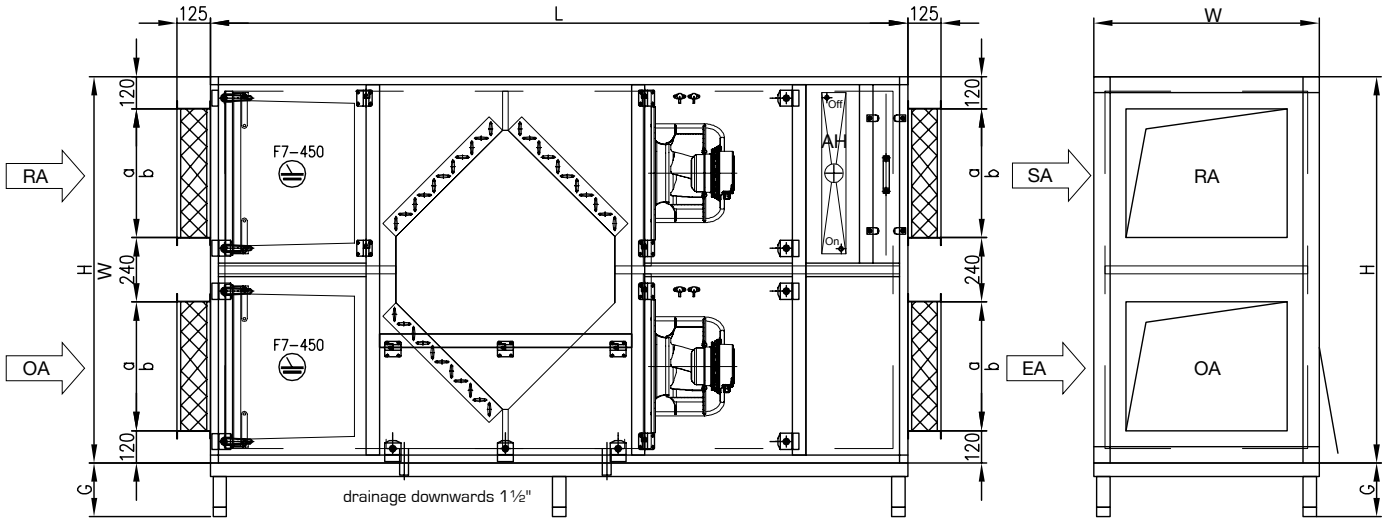
<b>BASIC DEVICE, ONE-PIECE</b>		<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>A4</b>	<b>A5</b>	<b>A6</b>	<b>A7</b>
Air volume flow m <sup>3</sup> /h3		800	1300	2000	3500	5000	6300	7700
Dimensions mm	H (height)	1040	1240	1440	1440	1440	1680	1680
	W (width)	620	720	840	1080	1440	1440	1800
	L (length)	2400	2550	2850	3050	3150	3810	3810
Base frame mm	G	200	200	200	200	200	200	200
Connections		SBM 30						
Outside air insulated	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200	600 × 1200	600 × 1500
Supply air	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200	600 × 1200	600 × 1500
Exhaust air	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200	600 × 1200	600 × 1500
Outgoing air insulated	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200	600 × 1200	600 × 1500
Condensate nozzle	DN	40 (1 1/2")						
Electrical connection		1 × 230 V	1 × 230 V	1 × 230 V	3 × 400 V	3 × 400 V	3 × 400 V	3 × 400 V

## Technical specifications

DEVICE SIZE	A1	A2	A3	A4	A5	A6	A7
Air flow rate at 2 m/s	800 m <sup>3</sup> /h	1300 m <sup>3</sup> /h	2000 m <sup>3</sup> /h	3500 m <sup>3</sup> /h	5000 m <sup>3</sup> /h	6200 m <sup>3</sup> /h	7700 m <sup>3</sup> /h
Static pressure ext.	250 Pa	250 Pa	250 Pa	250 Pa	250 Pa	250 Pa	250 Pa
<b>Fan</b>	ebm Papst						
Type, incl. EC motor with commutation unit	K3G250 0.50 kW	K3G280 0.50 kW	K3G280 0.75 kW	VBH0355 1.5 kW	VBH0400 3.60 kW	VBH0450 3.05 kW	VBH0500 4.10 kW
Connection	1 × 230 V	1 × 230 V	1 × 230 V	3 × 400 V	3 × 400 V	3 × 400 V	3 × 400 V
Specific fan power	SFP 3						
<b>Heat recovery</b>	Belimo damper motor, external drive axle						
Size	CR2-53-450	CR2-67-530	CR2-81-630	CR2-95-830	CR2-95-1140	CR2-120-1140	CR2-120-1440
Heat recovery coefficient, humid	88,0 %	88,0 %	87,0 %	87,0 %	86,0 %	84,0 %	84,0 %
Output	7,4 kW	12 kW	18,4 kW	31,9 kW	45,4 kW	55,1 kW	68,5 kW
Pressure loss	101 Pa	124 Pa	143 Pa	178 Pa	186 Pa	209 Pa	202 Pa
Outside air	-11 °C / 90 % r.F.						
Room exhaust air temperature	22 °C / 40 % r.F.						
<b>Air heater</b> incl. Frost protection	Supply air 15 - 22 °C						
Air heater output	1,8 kW	2,9 kW	4,5 kW	7,7 kW	11,0 kW	13,7 kW	17,1 kW
Pump hot water	VL 40 °C / RL 30 °C						
Water quantity	0,15 m <sup>3</sup> /h	0,25 m <sup>3</sup> /h	0,38 m <sup>3</sup> /h	0,67 m <sup>3</sup> /h	0,96 m <sup>3</sup> /h	1,19 m <sup>3</sup> /h	1,48 m <sup>3</sup> /h
<b>Filters</b> Filter class	Unifil: TW1_70 A+450-H-10T (old: F7), energy class A+ Differential pressure filter display, 0 - 250 Pa						
Filter size	<u>400 × 400</u>	<u>600 × 500</u>	<u>600 × 600</u>	<u>300 × 600</u> <u>600 × 600</u>	<u>2 Stk.</u> <u>600 × 600</u>	<u>2 Stk.</u> <u>600 × 600</u>	<u>2 × 600 × 600</u> <u>1 × 300 × 600</u>
Filter type	410	508Q	610	305 + 610	2 × 610	2 × 610	2 × 610 1 × 305
<b>External air and outgoing air sectional damper</b>	in the unit Belimo damper motor, external drive axle						

## Special model direct current

### Dimensional drawing and dimensions



<b>BASIC UNIT, ONE-PIECE</b>		<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>A4</b>	<b>A5</b>
Air volume flow m <sup>3</sup> /h			1300	2000	3500	5000
Dimensions mm	H (height)	1040	1240	1440	1440	1440
	W (width)	620	720	840	1080	1440
	L (length)	2210	2350	2580	2860	2960
Base frame mm	G	200	200	200	200	200
Connections		SBM 30				
Outside air insulated	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200
Supply air	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200
Exhaust air	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200
Outgoing air insulated	a × b	280 × 380	380 × 480	480 × 600	480 × 840	480 × 1200
Condensate nozzle	DN	40 (1 1/2")				
Electrical connection		1 × 230 V	1 × 230 V	1 × 230 V	3 × 400 V	3 × 400 V



## Technical specifications

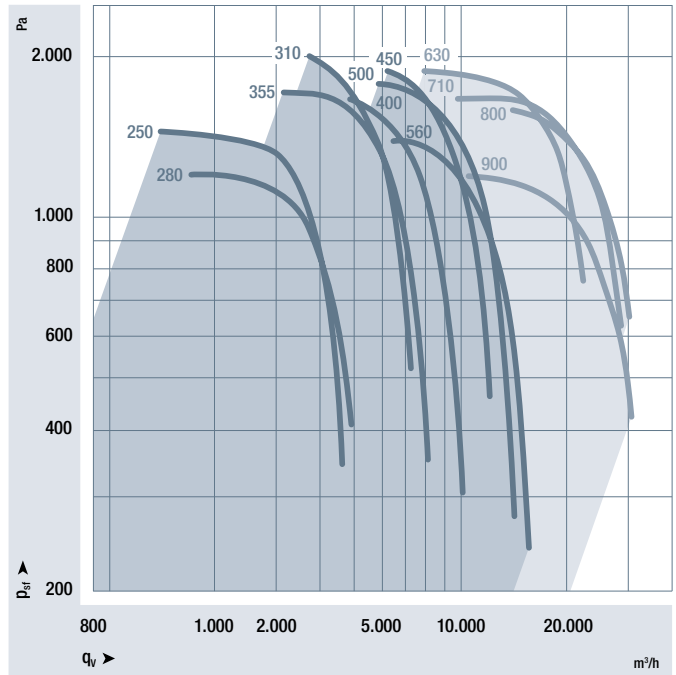
DEVICE SIZE	A1	A2	A3	A4	A5
Air flow rate at 2 m/s	800 m <sup>3</sup> /h	1300 m <sup>3</sup> /h	2000 m <sup>3</sup> /h	3500 m <sup>3</sup> /h	5000 m <sup>3</sup> /h
Static pressure ext.	250 Pa	250 Pa	250 Pa	250 Pa	250 Pa
<b>Fan</b>	ebm Papst				
Type, incl. EC motor with commutation unit	K3G250 0.50 kW	K3G280 0.50 kW	K3G280 0.75 kW	VBH0355 1.5 kW	VBH0400 3.60 kW
Connection	1 × 230 V	1 × 230 V	1 × 230 V	3 × 400 V	3 × 400 V
Specific fan power	SFP 3				
<b>Heat recovery</b>	Belimo damper motor, external drive axle				
Size	CR2-53-450	CR2-67-530	CR2-81-630	CR2-95-830	CR2-95-1140
Heat recovery coefficient, humid	88,0 %	88,0 %	87,0 %	87,0 %	86,0 %
Output	7,4 kW	12 kW	18,4 kW	31,9 kW	45,4 kW
Pressure loss	101 Pa	124 Pa	143 Pa	178 Pa	186 Pa
Outside air	-11 °C / 90 % r.F.				
Room exhaust air temperature	22 °C / 40 % r.F.				
<b>Air heater</b> incl. Frost protection	Supply air 15 - 22 °C				
Air heater output	1,8 kW	2,9 kW	4,5 kW	7,7 kW	11,0 kW
Pump hot water	VL 40 °C / RL 30 °C				
Water quantity	0,15 m <sup>3</sup> /h	0,25 m <sup>3</sup> /h	0,38 m <sup>3</sup> /h	0,67 m <sup>3</sup> /h	0,96 m <sup>3</sup> /h
<b>Filters</b>	Unifil: TW1_70 A+450-H-10T (old: F7), energy class A+				
Filter class	Differential pressure filter display, 0 - 250 Pa				
Filter size	400 × 400	600 × 500	600 × 600	300 × 600 600 × 600	2 Stk. 600 × 600
Filter type	410	508Q	610	305 + 610	2 × 610
<b>External air and outgoing air sectional damper</b>	in the unit Belimo damper motor, external drive axle				

## EC fans

Direct-drive centrifugal fans, so-called free-running fans, are used in the fans. Thanks to the large number of finely stepped impellers and motors, the fan best suited to the requirements can be installed in the monobloc.

The motors are speed-controlled with electronic commutation units (EC motors) and ensure excellent motor efficiency even in partial load operation. The compact EC motors are equivalent to energy efficiency class IE5 and not only allow small monobloc dimensions but also ensure a constant air volume flow.

Increased pressure losses due to dirty air filters or dirty air ducts can be compensated for in this way, as can changing requirements for the filter types.



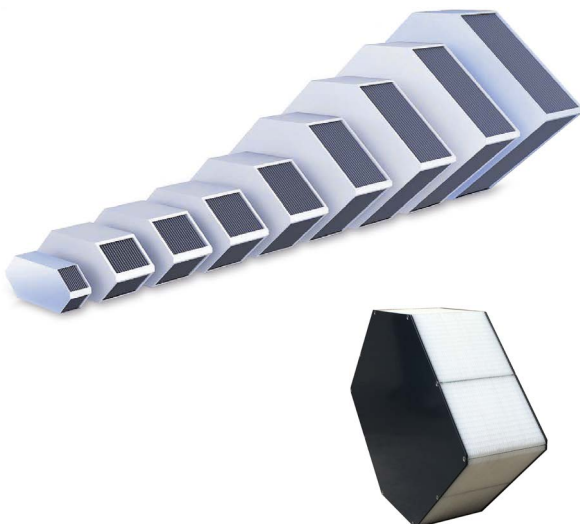
### Characteristic curve overview

If less output is required, variants with smaller motors can be used. This saves additional costs. The right fan for every application.



## Plate heat exchanger heat recovery system

The heat recovery system is a high-performance plate heat exchanger. It prevents odour transmission and has no moving parts. The heat recovery system is maintenance-free even in continuous operation.



### The counterflow plate heat exchanger

#### Energy savings of up to 90 % and higher with condensation

Machine-made "true counterflow exchangers with duct air routing" made of saltwater-resistant aluminium to achieve high efficiencies across the entire air volume spectrum.

### The enthalpy plate heat exchanger

Enthalpy plate heat exchangers are available in the same design as sensitive metal plate heat exchangers. The separating layer between the two air flows is a membrane that is permeable to the water molecules. The quality of the membrane and the tightness of the exchanger are crucial for proper functioning.

## Standardised filter cells

Standardised filter cells with standard dimensions are installed in the systems. This means that different filter types can be used without any problems. This ensures that the filtration can be adapted to changing requirements if necessary.



### Properties

- All models are available in different depths and with different numbers of bags.
- Filter classes according to standard ISO 16890
- ISO ePM10 50% (M6)
- ISO ePM1 70% (F7)
- ISO ePM1 90% (F9)
- Energy efficiency class A+ according to Eurovent
- High dust holding capacity
- Recommended final pressure drop: Initial pressure loss x 2, but max. initial pressure loss + 100 Pa
- Temperature resistance 80°C
- Complies with hygiene guideline SWKI VA104-01
- Easy filter change thanks to quick-release filter frame



## Panel fillings

The insulation materials are selected according to the customer's preferences. The requirements for sound insulation, stability, thermal insulation and fire protection can be optimally met for every application.

- Rock wool
- PUR rigid foam
- PIR rigid foam
- Cardboard honeycomb structure
- Idikell as additional insulation material for soundproofing

## Options for Alpenklang

3-piece  
 with changeover heat exchanger  
 with separate air cooler  
 Air heater+Air cooler in separate cube  
 roof unit with 54 mm panels (+25 mm width),  
 Sarnafilm roof, RAL 7015  
 with weather protection grille  
 with rain protection hood for weather  
 protection grille with aluminium +  
 outgoing air silencer  
 Hygroscopic (enthalpy) instead of  
 aluminium plate exchanger  
 2nd exhaust filter stage  
 (e.g: HTK5 for kitchen exhaust air)  
 without sleeve  
 Ceiling mounting brackets  
 without air heater

# Regulation

## Specifications Siemens Synco

The regulator is a commercially available product. The switch cabinet is assembled and wired ready for operation. Service and maintenance work can be commissioned independently of the manufacturer. The spare parts are guaranteed, successor products are compatible.

### Controller

- Standard controller Siemens Synco
- Parameterisable controller for ventilation units
- Comprehensive functionality
- Simple operation
- Fast commissioning
- The best support from a reliable partner
- High quality and reliability
- OPTIONAL; PXC4 controller for increased requirements

### Field devices

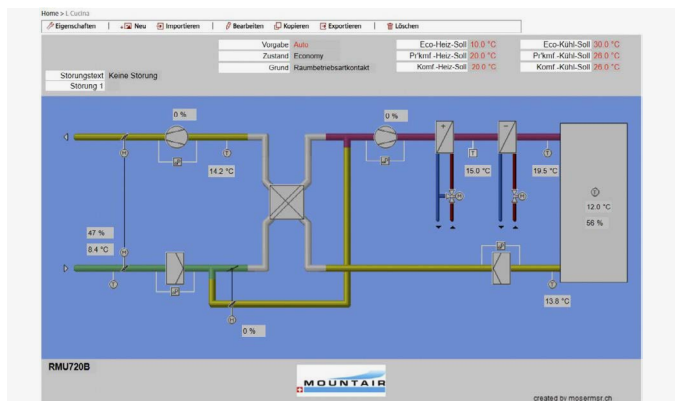
- Sensors with standard signals, 0-10V or KNX, BUS
- Actuators: Belimo
- Valves dimensioned for specific systems

### Electrical control cabinet and wiring

- Switch cabinet with NIV protocol  
(Low Voltage Installation Ordinance)
- Standardised enclosure/standardised terminals/  
tight screw connection
- Wiring according to SEV (Swiss Electrotechnical  
Association)
- Installation of additional components such as fire  
dampers (as required)

### Service

- Customised and system-specific electrical diagrams
- Commissioning and documentation



Webserver visualisation Siemens Synco controller

## Regulation

### Specification Siemens PXC4

#### Free programming and configuration with the user-friendly ABT Site Tool

- A freely programmable controller customised for heating, ventilation and air conditioning or cooling systems.
- Simple and flexible programming using a library with more than 250 existing field devices, function blocks and/or programming blocks.
- Pre-programmed and customisable system examples make programming particularly easy.

#### User interface via web browser

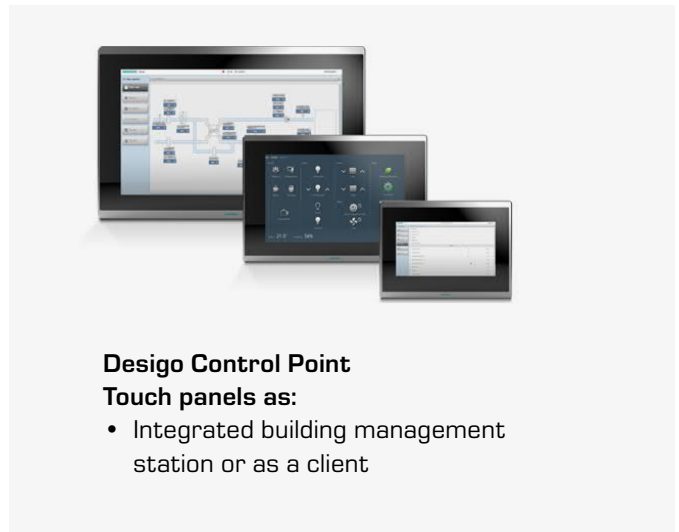
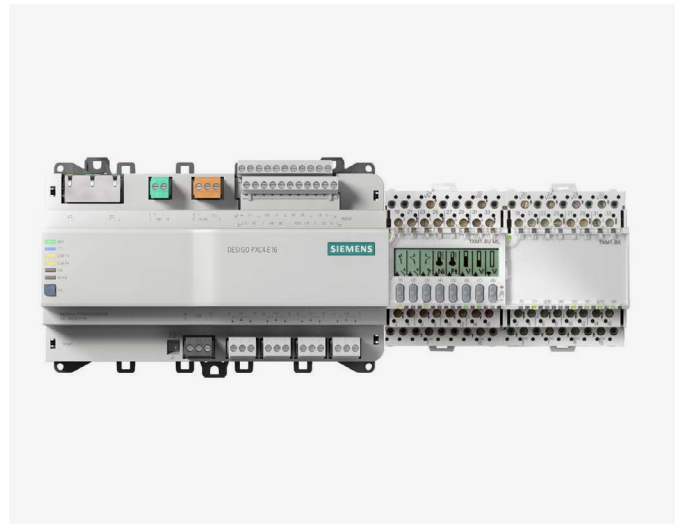
- The PXC4 and the PXC5 have an integrated web interface, which enables commissioning and maintenance tasks to be carried out directly on the device.
- It complements the project handover process by making it easy to commission and maintain the control systems.
- The integrated web interface can be used as an operating and monitoring option without additional programming.

#### Inputs and outputs modularly expandable without additional power supply

- The PXC4 controller is designed as a compact device with 16 onboard IOs
- A maximum of 40 IOs can be achieved with additional TX I/O modules
- Integrated power supply for up to 4 TX-I/O modules
- TX-I/O modules can be connected directly or installed at another location via island bus

#### Designed with all the necessary functions

- PXC4 series has an RS485 interface for Modbus RTU
- The PXC4.E16 can also integrate Modbus TCP
- Any devices can be added via RTU or TCP for up to 40 Modbus data points
- Comprehensive options for Modbus register types and sizes
- Integration of HVAC system devices such as frequency inverters, energy meters or Modbus sensors
- The device hardware is prepared for the future connection of KNX components. This will be possible by simply updating the firmware.



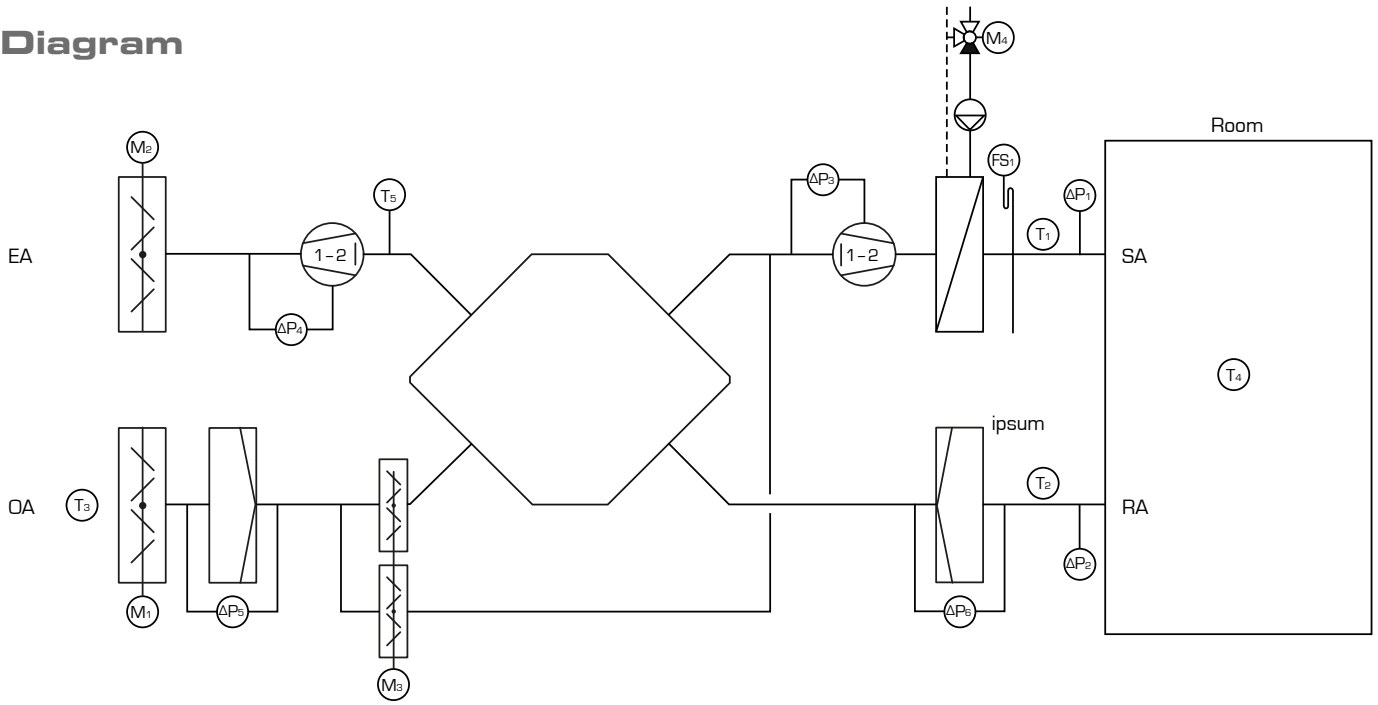
#### Desigo Control Point Touch panels as:

- Integrated building management station or as a client



# Regulation

## Diagram



## Siemens Synco regulation specification

<p>Mounting</p> <p>Sup</p> <p>...°C</p> <p>T<sub>4</sub></p> <p>Mounting</p> <p>Exh</p>		0 / 1	<p>Manual</p> <p>0/1/A</p>	Example 1
		0 / 1		<p>Air quality</p> <p>LQ</p> <p>...ppm</p>
		...%	<p>Air quality + Temp.</p> <p>LQ T</p> <p>...ppm ...°C</p>	
		...%		<p>Motion detector</p> <p>IR</p> <p>0 / 1</p>
		min/max	<p>Temperatur</p> <p>T</p> <p>...°C</p>	
		min/max		<p>Time butto</p> <p>0 / 1</p>

## Definition of regulation

Fans	<p>1 stage</p> <ul style="list-style-type: none"> <li>Controlled via timer</li> <li>Controlled via contact</li> </ul> <p>2 levels controlled via timer</p> <p>Valve speed with potentiometer in the control cabinet [standard without potentiometer]</p> <p>Constant pressure regulation</p> <p>Constant volume flow regulation</p> <p>Variable air flow via CO<sub>2</sub>/VOC sensor</p> <p>Units: _____</p> <p>Variable air flow via T: Units: _____</p>	<p>Synco controller</p> <p>Standard: RMZ-790</p>	<p>Control panel [RMZ791] on cabinet door assembled</p> <p>Control panel remotely with KNX BUS [RMZ792]</p> <p>with WEB server OZW772</p> <ul style="list-style-type: none"> <li>1 piece</li> <li>4 piece</li> <li>16 piece</li> </ul> <p>with BUS connection KNX</p> <p>BACnet via gateway</p>
Temperature	<p>Supply air temperature regulation</p> <p>Exhaust air temperature regulation</p> <p>Supply air-Exhaust air cascade regulation with bypass regulation [incl. damper motor fitted]</p> <p>With rotor speed regulation [incl. rotor drive and control box]</p> <p>With run-around coil heat recovery bypass regulation [incl. valve supplied loose]</p> <p>With air heater regulation [supplied loose incl. 2-way valve, 3-way valve]</p> <p>With air cooler regulation [supplied loose incl. 2-way valve, 3-way valve]</p> <p>With changeover system [air heater+air cooler together], [only common valve loose]</p> <p>With frost protection monitoring</p> <p>Night cooling with room sensor and external facade sensor</p>	<p>PXC4 controller</p> <p>Standard: PXM30-1</p>	<p>Touch control panel medium 10.1» PXM40-1 mounted on a cabinet</p> <p>Control panel Touch large 15.6» PXM50-1 Mounted on cabinet</p> <p>Panel with graphic view type PXMxQE with WEB server [in the control cabinet]</p> <p>PXG3.W100-2 BACnet/IP WEB interface with standard functionality</p> <p>PXG3.W200-2 BACnet/IP WEB interface with extended functionality</p> <p>BUS connection</p> <ul style="list-style-type: none"> <li>Modbus RTU</li> <li>Modbus TCP/IP</li> <li>BACnet via Ethernet</li> <li>BACnet via Mosbus</li> <li>MP-Bus via gateway</li> <li>KNX [currently reduced range]</li> </ul> <p>Ethernet, WEB, cloud accesses</p> <p>Network connection with Windows app, with mobile phone and tablet apps [WLAN]</p> <p>Remote maintenance SECOMEA [annual licence fee]</p> <p>Variant: Collective alarm by email to maintenance</p> <p>Cloud connection with Siemens [annual licence fee]</p>
Optionen	<p>Anti-icing protection with defrost function T in outgoing air</p> <p>T in glycol circuit</p> <p>Filter monitoring also electrical [visual is standard]</p> <p>Without outside air outgoing air flaps</p> <p>Integration of air heater pump [supplied by customer]</p> <p>Integration air cooler pump [supplied by customer]</p> <p>Remote control 0-1-2-Auto [external switch]</p> <p>Remote signalling: -operation, -fault</p> <p>Integration pcs. Mounting component supplied by customer</p> <p>THC 24 modules</p> <p>Integration pcs. Volume flow controller [supplied by customer]</p> <p>Integration pcs. Smoke detector in outgoing air in exhaust air delivery Mountair delivery on site</p> <p>External contacts</p> <ul style="list-style-type: none"> <li>Motion detector</li> <li>Light</li> <li>Button</li> </ul> <p>Internal MB lighting</p> <ul style="list-style-type: none"> <li>From room light</li> <li>From the switch cabinet</li> </ul>	<p>Switch cabinet</p>	<p>supplied loose</p> <p>Monobloc internally pre-wired to junction box</p> <p>Monobloc internally wired with _____ m cable, loose</p> <p>Switch cabinet mounted and fully wired</p> <p>Overvoltage protection due to outdoor installation</p>
		<p>Delivery</p>	<p>1-piece      2-piece</p> <p>3-piece      4-piece</p> <p>5-piece</p> <p>Completely disassembled, mounting place</p>
		<p>Commissioning</p>	<p>at the Mountair AG plant on the construction site (1 walk)</p> <p>Additional 2nd commissioning appointment on site by contractor; programme loaded</p>

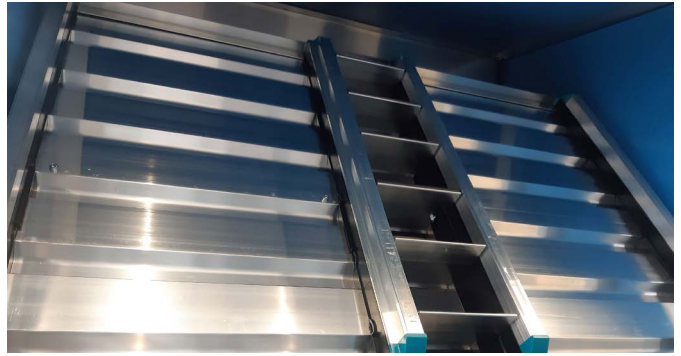
## References



2023-12

### Redevelopment of Davos Dorf school building

- Cloakroom/adjoining rooms, Alpenklang A3 compact unit  
Air volume 1750 m<sup>3</sup>/h, 1-piece design  
Aluminium PHE-HR, air heater, EC-fan, F7/F7 filter



2023-12

### Conversion/new building TKB Aadorf

- Alpenklang A4, air volume: 2990 m<sup>3</sup>/h  
Outside air: Damper, F7, aluminium PHE, HR EC fan,  
Change-Over 4RR & FSG exhaust air: F7, aluminium PHE,  
EC fan, damper



2023-12

### New construction of an apartment building with commercial premises, Birmensdorferstrasse 313 to 317, Zurich

- Residential building 1, compact unit up to 5000 m<sup>3</sup>/h  
Counterflow-PHE-HR, air heater, F7/F7 filter, EC fans, dampers, sleeves, base frame, replacement filter supplied in 3 parts  
Complete regulation Siemens Synco  
Switch cabinet assembled, internally wired, field devices, diagram. Commissioning on site, pump not fixed, smoke detector
- Residential building 2, compact unit up to 3500 m<sup>3</sup>/h  
counterflow-PHE-HR, air heater, F7/F7 filter, EC fans, dampers, sleeves, base frame, replacement filter supplied in 3 parts  
Complete regulation Siemens Synco, switch cabinet assembled, internally wired, field devices, diagram. Commissioning on site, pump not fixed, smoke detector

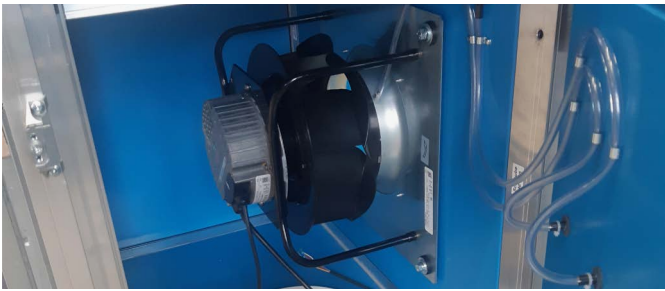


2023-11

### MFH Jupiterstrasse Reinach, Building A, B, C

- Alpenklang A3, with Vapobloc hygro. PHE  
Residential ventilation building A1, 1960 m<sup>3</sup>/h  
Residential ventilation building A2, 1960 m<sup>3</sup>/h  
Residential ventilation building C1, 1810 m<sup>3</sup>/h  
Residential ventilation building C2, 1410 m<sup>3</sup>/h
- Alpenklang A2, with Vapobloc hygro.-PHE  
Residential ventilation building B1, 1090 m<sup>3</sup>/h  
Residential ventilation building B2, 1210 m<sup>3</sup>/h  
Residential ventilation building B3, 1210 m<sup>3</sup>/h
- All 7 monoblocks with complete regulation.
- Brand: Siemens/Synco, constant pressure, smoke detector, external contact, and switch cabinet mounted on the side and wired in the factory





2023-04

### Heiget school complex, Fehrltorf

- Technology, compact unit 1850 m<sup>3</sup>/h, Alpenklang A3
- PHE-HR, EC-fan, F7/F7 filter,
- complete regulation Siemens Synco,
- Field devices, switch cabinet loose, diagram,
- Internal wiring, incl. Integration
- 6 pcs. Mounting component, supplied in 1 piece



2023-04

### Self-storage Frasnach

- Run-around coil heat recovery system monoblock 5800 m<sup>3</sup>/h.
- Complete regulation Siemens PxC4, field devices incl. 2 pcs. Humidity/T-duct sensor QFM2160, 5 pcs. Zone air heater with 5 pcs. Zones T-sensors, dehumidification KM, with circulating air function, control cabinet loose, plan, commissioning on site, integration 33 pcs. Mounting component



2023-10

### Zermatt sports pavilion

- LA sports pavilion, Alpenklang A4, 3500 m<sup>3</sup>/h
- Unit for outdoor installation
- with Sarnafil roof, ex works
- incl. Regulation Siemens (Synco)
- System regulation: constant volume flow
- Electrical diagram, control cabinet, field devices, damper actuators, 3-way valve, weather sensor, liquid monitor, 1 unit. Smoke detector incl. Integration of 2 units Mounting component
- Control cabinet for wall mounting, loose



2023

### Klein Rigi

- Supply air/Exhaust air for restaurant/kitchen with 7000 m<sup>3</sup>/h  
incl. integrated refrigeration 50 kW cooling capacity with outdoor unit (compact module)
- System including control/regulation



2023-03

### New building MFH Im Hinterkirch 1 + 2, Reinach

- LA flats 1, 1250 m<sup>3</sup>/h, Alpenklang A3  
Incl. PHE-HR with humidity transfer, air heater and EC fans. Vertical design. 3-part delivery.
- LA flats 2, 750 m<sup>3</sup>/h, Alpenklang A2  
Incl. PHE-HR with humidity transfer, air heater and EC fans. Vertical design. 3-part delivery.



2023

### Klink Schloss Mammern, new park-view building

- Supply of equipment for the west and east park-view building, office/lobby (enthalpy PHE; with humidity recovery), ancillary rooms (aluminium heat exchanger) and restaurant/kitchen (circulation and HR) incl. circulation system-hydraulic module and heat recovery controller

## Mountair AG

## Conditions for commissioning

<b>Release for commissioning Regulation Siemens</b>	<b>Date</b>	
---	-------------	--

Client		POSTCODE	
Additional details		Place	
Address			
Contact person			
email		@	
Phone			

Property		PJ No.	
Additional details		POSTCODE	
Address		Place	
Contact person on site		Mobile phone	

Note on preparation:	<p>The listed points must be checked by the client and their availability must be confirmed.          Work cannot take place without this written confirmation.          If commissioning cannot be carried out or can only be carried out in part due to defects, we must charge the client for the additional expenses.</p>
----------------------	---

<b>Commissioning of the monoblock</b>		<b>Controlled</b>
<b>01</b>	Sewer network completed and all outlets / inlets ready	
<b>02</b>	System electrically wired internally	
<b>03</b>	El. power supply to the control cabinet connected and the phases checked	
<b>04</b>	External field devices: Temp. sensors + pressure sensors, mounted and wired	
<b>05</b>	Tray drains connected and fitted with separate siphons	
<b>06</b>	Peripheral devices for pump hot water: Valves, pumps mounted and wired	
<b>07</b>	Mounting component peripheral devices, smoke detectors fitted and wired	
<b>08</b>	Heating water (pump hot water) + any cooling (pump cold water) available and ready for operation	
<b>09</b>	Remote access option: Data line available, checked and IP address known	
<b>10</b>	Bus interface option: Data line available, bus protocol known.	
<b>11</b>	Ventilation centre cleaned, light available, socket for service available	

- The site electrician must be on the site
- The control technician of the higher-level building management system must be present (bus interface)
- Please inform the Mountair technician of all settings on site
- To train the operator, the control technician can be instructed on the commissioning day

**The cancellation deadline for commissioning appointments confirmed by Mountair is 3 working days. If the cancellation deadline is not complied with, the commissioning appointment will be billed.**

Client	
Contact person	
Place, date	
Signature	

# Quote enquiry Alpenklang

Project name	
Company	Date
Contact person	Deadline
E-mail	Phone

## TECHNICAL DATA

System number / Name	
Height above the sea	m a.s.l.
Construction form	Vertical Horizontal Direct flow special model
Unit size	A1 A2 A3 A4 A5
Supply air quality	Q1 Q2
Supply air flow volume (20 °C/40 %)	m³/h
External pressure SA	Pa
Filtration supply air	M6 F7 F9
Return air quality	Q1 Q2
RA flow volume (20 °C/40%)	m³/h
External pressure RA	Pa
Filtration return air	M6 F7 F9
Design	inside outside
Colour	Standard: RAL5012, blue (inside) Standard: RAL7015, grey (outside) <input type="checkbox"/>

Cuffs	Yes	No		
Flaps	OA	EA	SA	RA
Base frame height	mm			
Air heater	Flow	°C	Return	°C
Air cooler	Flow	°C	Return	°C
Controller	Siemens Synco without			

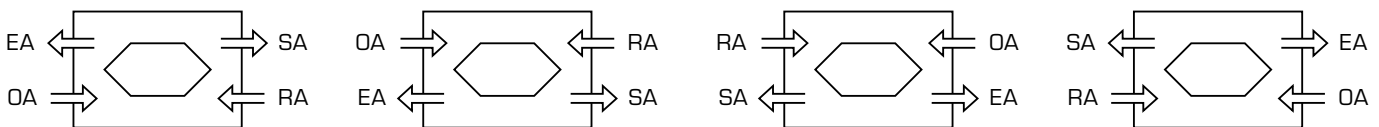
AIR CONDITIONS	SUMMER	WINTER
OA: Temperature	°C	°C
OA: Relative/Absolute humidity	%/g/kg	%/g/kg
SA: Temperature	°C	°C
SA: Relative/Absolute humidity	%/g/kg	%/g/kg
RA: Temperature	°C	°C
RA: Relative/Absolute Feuchte	%/g/kg	%/g/kg

The Alpenklang compact air handling unit can be delivered in the following construction forms:  
(Please tick the desired connection placing):

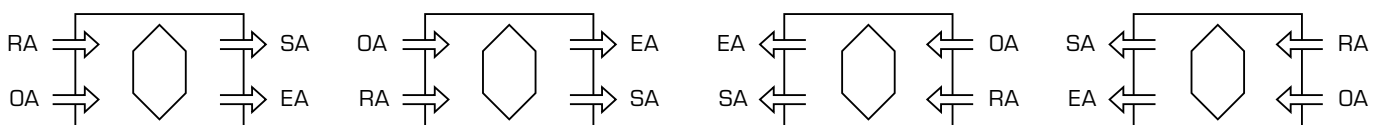
### VERTICAL



### HORIZONTAL



### SONDERMODELL GLEICHSTROM



**Mountair AG**  
**Lufotechnischer Apparatebau**  
Sonnenwiesenstrasse 11  
8280 Kreuzlingen

T +41 71 686 64 64  
F +41 71 686 64 76

**Mountair AG, Basel**  
Florenzstrasse 9  
4142 Münchenstein

T +41 61 841 09 74  
F +41 61 841 09 75

**Mountair AG, Suisse Romande**  
Route de Saint Julien, 275  
1258 Perly

T +41 22 771 58 36

[info@mountair.com](mailto:info@mountair.com)  
[www.mountair.com](http://www.mountair.com)

