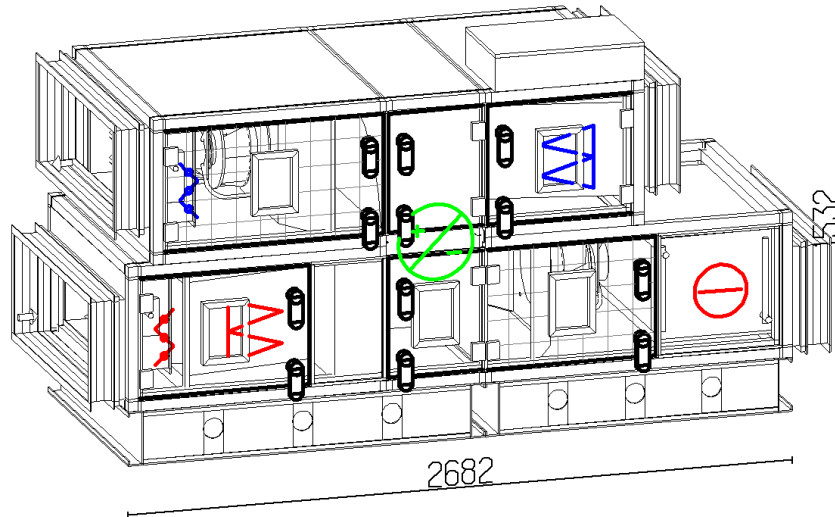
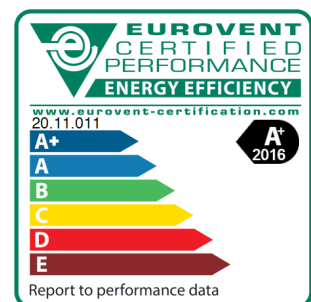


Unit no.: 10  
Geniox 10  
Weight: 667 kg  
Unit width: 1082 mm



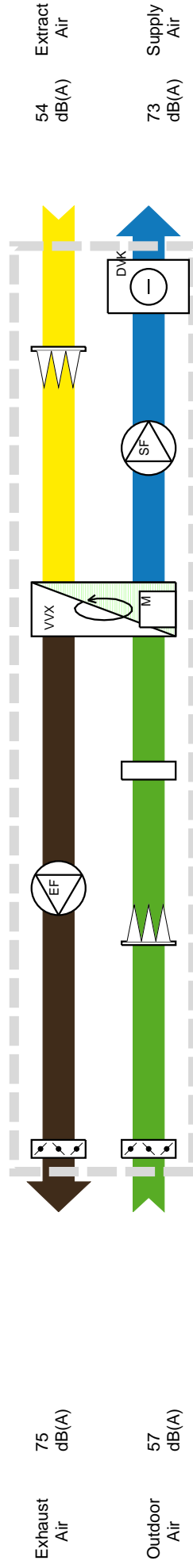
Air/fan data	Supply air	Extract air	Units
Airflow (1.205 kg/m <sup>3</sup> )	2500	2500	m <sup>3</sup> /h
Face velocity (unit)	1.62	1.62	m/s
External pressure	300	300	Pa
Fan speed	2423	2203	RPM
Motor; Voltage; Rated current	1.30; 1x230; 5.65	1.30; 1x230; 5.65	kW/V/A
Sound break out	52 dB(A)		
Power supply	L1 + L2 + L3 + N + PE (3x400V) 50 Hz		
Consumed current	5.7 A		
Filter Supply / Extract	F7 - ePM1 60% / M5 - ePM10 60%		
Cooling coil, evaporation	24.9 kW ; 35.0/18.0°C		
	Medium 6°C ; 28 mm / 35 mm Pipe connections		
Energy	Dimensioning	Average	Fans [kWh/year 8760 hours]
Heat Recovery (Wet / Dry)	74.6 % / 75 %	74.6 % / 75 %	
SFPv, clean filters including speed control	1.74 kW/(m <sup>3</sup> /s)	1.74 kW/(m <sup>3</sup> /s)	10568 kWh
SFPe with dimensional filter press. incl. speed contr.	1.88 kW/(m <sup>3</sup> /s)	1.88 kW/(m <sup>3</sup> /s)	11437 kWh
	2018		
Ecodesign approved	Yes		



Quotation no. Geniox 10 2500 m<sup>3</sup>h condensation wheel DX Cooling Coil  
 Project  
 Plant no.

Winter	Temperature after [°C]	-3.0	-3.0	-3.0	22.0	22.0	22.0
	Humidity after [%]	100	100	100	40	40	40
	Pressure drop [pa]	0	2	17	111	76	300
	Pressure after function [pa]	-	-0	2	-487	-376	-300
				Efficiency 63.7% (Total Pressure)		M5 - ePM10 60% Filter	

Summer	Temperature after [°C]	22.0	22.0	22.0	22.0	22.0	22.0
	Humidity after [%]				40	40	40



Winter	Temperature after [°C]	-20.0	-20.0	-20.0	-20.0	13.4	13.4	13.4
	Humidity after [%]	90	90	90	49	49	49	49
	Pressure drop [pa]	0	2	109	2	17	87	300
	Pressure after function [pa]	-0	-2	-111	-113	-224	419	300
				F7 - ePM1 60% Filter		74.6/75% Wet/dry	Efficiency 63.4% (Total Pressure)	

Summer	Temperature after [°C]	27.0	27.0	27.0	32.0	18.0	18.0
	Humidity after [%]	60	60	60	45	86	86
						24.92 kW	



**Commissioning Data**

	Supply	Extract	Unit
Pressure drop clean filters	59	38	Pa
Fans absorbed power clean filters	-	-	kW

**Alternative working points**

	Dim./Max								Average
Airflow, Supply, m <sup>3</sup> /h	2500								2500
Airflow, Extract, m <sup>3</sup> /h	2500								2500
External pressure drop, Supply	300								
External pressure, Extract	300								
SFPv, kW/(m <sup>3</sup> /s)	1.74								1.74
SFPe, kW/(m <sup>3</sup> /s)	1.88								1.88
Efficiency, Heat exchanger (wet), %	74.6								74.6
Efficiency, Heat exchanger (dry), %	75								75
Cooling coil, Capacity, kW	24.9								24.9
Sound data dB(A)									
Supply air	73								
Outdoor air	57								
Exhaust air	75								
Extract air	54								
Sound break out	52								
Operation hours	8760								
Operational hours yearly	8760								

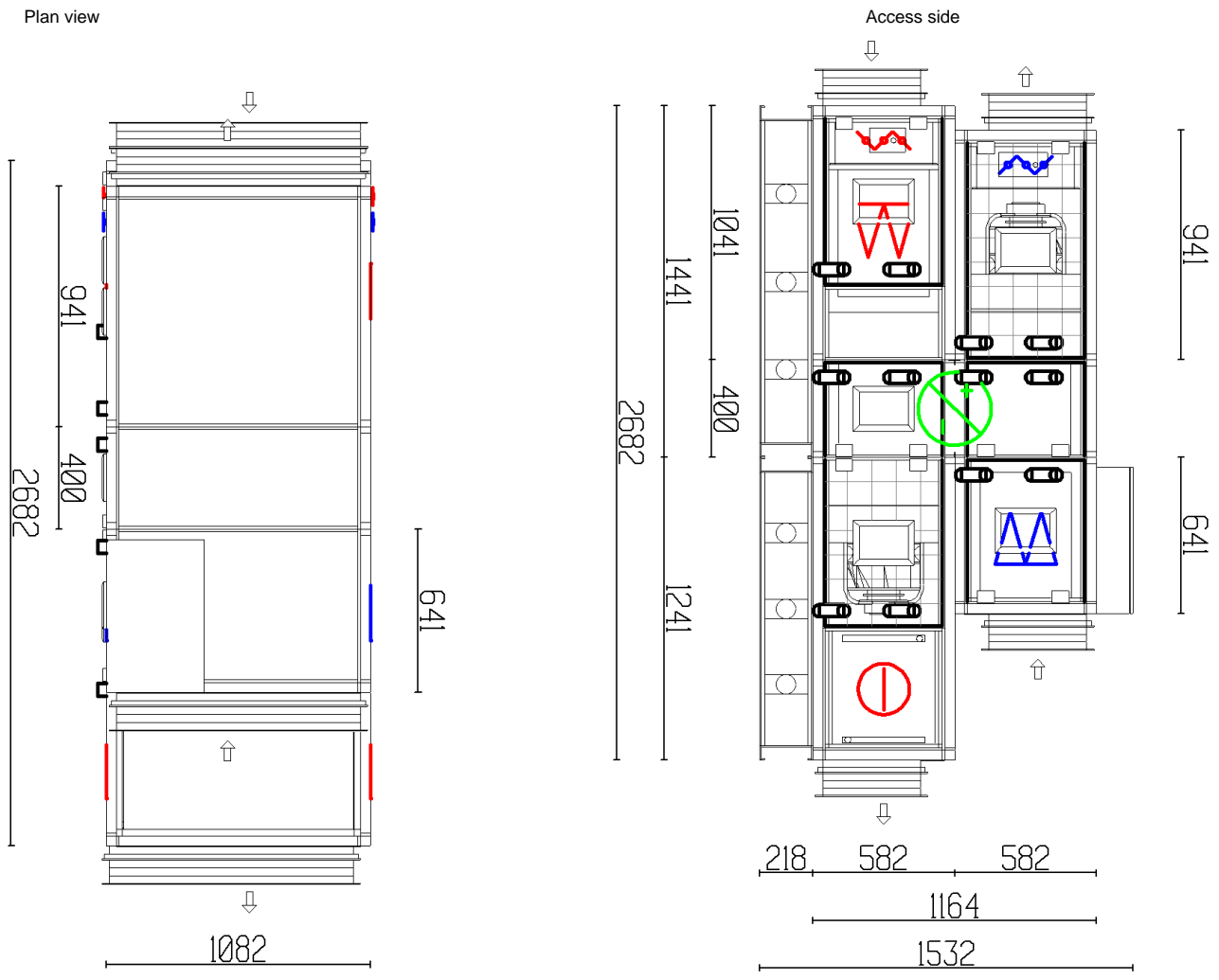
**Ecodesign**

	2018	Value	Limit
Unit type (Non-residential - Bidirectional)	Approved		
Fan with multispeed or Var.Speed Drive	Approved		
Heat recovery	Approved		
Thermal efficiency of Heat Recov. System	Approved	75	73
Pressure gauge	Approved		
SFP internal in W/(m <sup>3</sup> /s)	Approved	581	1044
Total check	Approved		

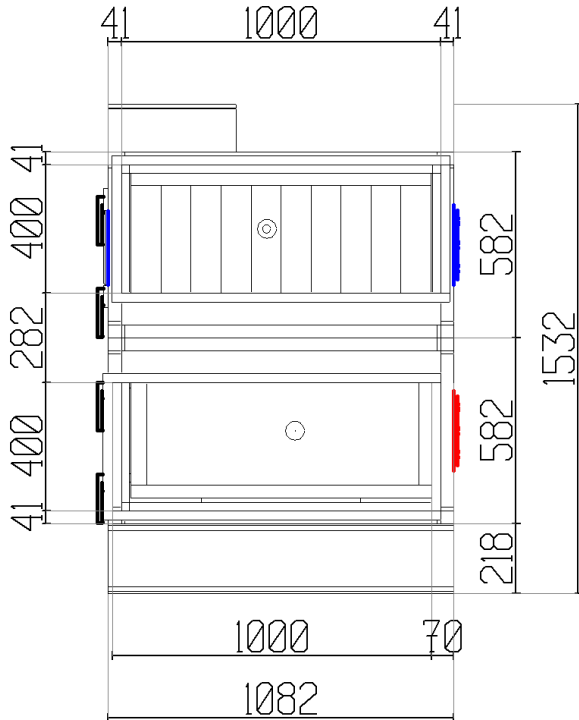
		Supply	Extract	
Manufacturer	Systemair			
Model	Geniox 10			
Typology	NRVU;BVU			
Drive Type		EC Bluefin	EC Bluefin	VSD Ok
Type of Heat Recovery System (HRS)	Rotary heat exchanger			
Thermal efficiency of HRS (dry condition)	75			%
Non Residential unit - flow rate		0.69	0.69	m <sup>3</sup> /s
Effective electric power input incl. clean filters and variable drive		0.58	0.52	kW
SFP internal in W/(m <sup>3</sup> /s) 2018	581	318	263	W/(m <sup>3</sup> /s)
Face velocity		1.62	1.62	m/s
Nominal external pressure		300.00	300.00	Pa
Internal pressure drop of ventilation components		169.52	149.21	Pa
Overall static pressure drop with clean filter		469.52	449.21	Pa
Overall static efficiency of fans with clean filter		53.25	56.76	%
Maximum external leakage rate @ ± 400 Pa	Leakage class L1 according to EN 1886. Leakage rate is less than 1%.			
Maximum internal leakage rate (EATR, ?p = 250 Pa)	Leakage rate is less than 3%.			
Energy class for filters		B	D	
Visual filter warning description	Control display			
Internet address with information about disassembly	techdoc.systemair.dk			

Sound power level	Supply air	Outdoor air	Exhaust air	Extract air	Sound break out
Total	73 dB(A)	57 dB(A)	75 dB(A)	54 dB(A)	52 dB(A)

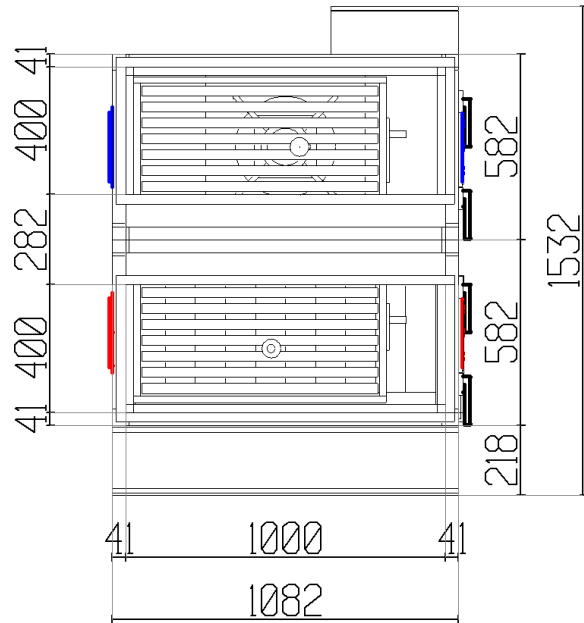
Ecodesign is calculated for a reference configuration with ePM1 60% (F7) filter in supply and ePM10 60% (M5) filter in extract.



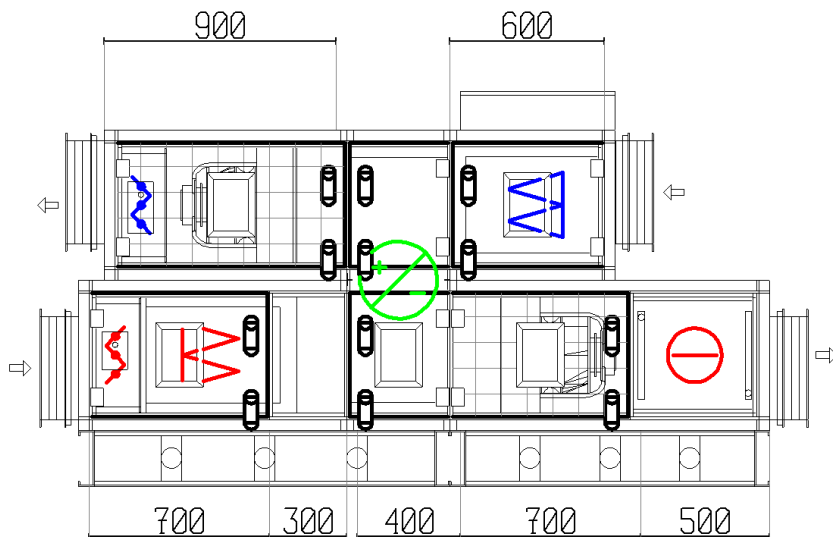
Right end

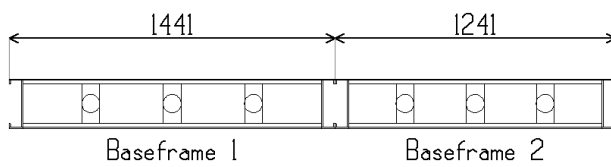
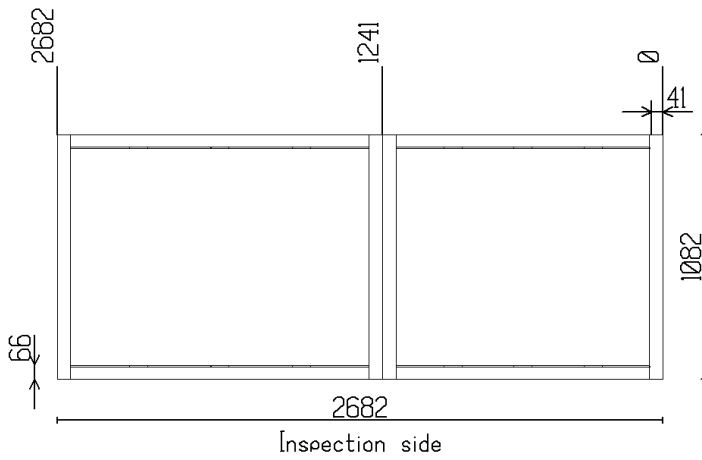


Left end



Doors and panels dimensions





Technical specification

Unit

Frequency band [Hz]	63	125	250	500	1K	2K	4K	8K	Total
Sound power level	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB(A)]
Supply air	65	66	70	68	69	67	62	57	73
Outdoor air	60	58	62	56	50	44	37	30	57
Exhaust air	65	66	67	68	70	69	65	62	75
Extract air	60	57	57	54	48	41	35	29	54
Sound break out	59	59	50	46	48	46	39	25	52

Casing

Panels	Steel sheets coated with aluzinc AZ185		
Frame profiles	Steel profiles coated with zinc z275 and pre painted		
Mullion profiles	Steel profiles coated with aluzinc AZ185		
Corners	ABS		
Insulation	60 mm mineral wool / Density 60 kg/m3		
Corrosion protection	Class C4 according to EN ISO 12944-2:2000		
Operating pressure	0 - 2000 Pa (Geniox10 - Geniox31)		
Operating temperatures	-40/+40 °C (Standard) -40/+60 °C (Special design)		
Classifications	EN 1886, 2. edition 2008		
Mechanical Strength	Class D1(M)		
Casing air leakage	-400 Pa: Class L1(M) +700 Pa: Class L1(M)		
Filter by-pass leakage	-400 Pa: Class G1-F9 +400 Pa: Class G1-F9		
Thermal transmittance	Class T2(M)		
Thermal bridging factor	Class TB2(M)		
Acoustic insulation of casing	Octave band Hz	Insulation dB	
		63	10
		125	17
		250	24
		500	27
		1000	28
		2000	28
		4000	32
		8000	40



### Control system

Language in controller menu	Deutsch	
NaviPad navigation tablet delivered	Yes	
External communication	MODBUS RTU, RS485	
Temperature control	Cascaded extract air temperature control	
Fan control	Air flow control m <sup>3</sup> /h	
Damper motor supply air	Motor spring return	
Damper motor extract air	Motor spring return	
Free cooling	Yes	
Coil configuration	Cooling	
DX cooling control signals	Cooling capacity of DX by 0-10 V signal	
Fire guards	Preconfigured for external fire block and run indication signal	
Lamps and switch for lamps	Yes	
For selection of sensors - study flow chart in control system printout		

### Mains power supply for control system

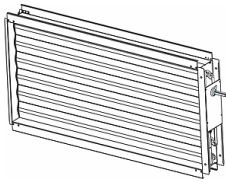
Supply cable	L1 + L2 + L3 + N + PE	
Voltage	3x400	VAC
Hz	50	Hz
Fuse for supply air fan (in main cabinet)	10	A
Fuse for extract air fan (in main cabinet)	10	A
Rated fuse PSCC max (in main cabinet)	10	kA
Max. consumed current	5.7	A
Max. consumed current in neutral wire	14.3	A
Minimum fuses for unit (L1-L2-L3)	10	A
Minimum fuses for unit (L1-L2-L3-N)	16	A

The installer must ensure that protection of the mains power supply relating to frequency converters is according to local statutory requirements. By one or more 400 VAC motors, Residual Current Circuit Breaker type B must be installed.

The electrical installation (wiring, mounting of components, connection plugs, etc.) for the unit is done as an machine installation according to 60204-1

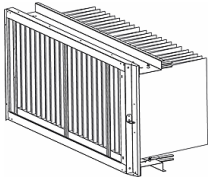
### The supply unit consist of

#### Damper



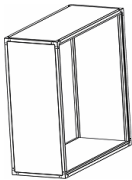
Pressure drop	2	Pa
Damper blades	Standard	
Number of dampers	1	pcs

### Filter



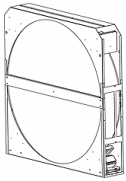
Dimensioning pressure drop	109	Pa
Initial pressure drop/Final pressure drop	59/159	Pa
Velocity, face area	2.24	m/s
Velocity, filter area	1.62	m/s
Filter class	F7 - ePM1 60%	
Filter size	1x[792x392x25]	
Filter length	520	mm
Filter description	Camfil Hi-Flo II XLT	
Inspection window	1	pcs
LED light with external switch	1	pcs
Magnehelic manometer	1	pcs
The manometer is supplied wired from factory.		

### Empty section



Pressure drop	2	Pa
Length	200	mm

### Rotary heat exchanger



	Supply	Extract	
Air flow	2500	2500	m <sup>3</sup> /h
Pressure drop	111	111	Pa
Air temperature before/after	-12.0/13.4	22.0/-3.0	°C
Air relative humidity before/after	90/49	40/100	%
Capacity	28.40		kW
Temperature efficiency	74.6		%
Dry efficiency according to EN 308 at 2500 m <sup>3</sup> /h	75		%
Humidity efficiency	64.1		%
Heat exchanger type	P - Condensation (Temperature)		
Efficiency (Wave height)	D - Low		
Wheel Diameter	Ø880		
Description	P14-880*		
Rotor drive	Variable speed		
Electrical data	1x230V, 85W, 0.4Amp		
Purging sector	1		pcs
Inspection window	1		pcs
LED light with external switch	1		pcs

### Fan, Plug

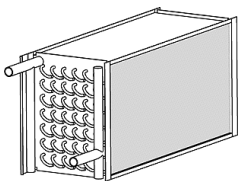


Air flow	2500	m <sup>3</sup> /h
External pressure	300	Pa
Pressure drop	17	Pa
Static pressure (Designed at wet conditions)	659	Pa
Total pressure	673	Pa
Fan speed	2423	RPM
Maximum fan speed	3000	RPM
Total efficiency by static pressure, incl. motor and speed control	62.1	%
Total efficiency by total pressure, incl. motor and speed control	63.4	%
K-factor (p=1.2 kg/m <sup>3</sup> )	106	
Fan type - Large	GR311-ZID.DC.CR	
ErP efficiency n(stat,A)	71.9	%
ErP efficiency class N(actual)/ N(target)	81.2 / 62	
ErP-conformity	Yes	
Direct drive		

### Motor

Motor type	EC motor	
Motor types-size	ZID.DC.CR	
Motor protection	Built-in	
Rated power	1.30	kW
Speed (nominal)	3000	RPM
Current, Amp.	5.70	A
Voltage	1x230	V
Consumed power from mains power supply, including speed control	0.74	kW
Safety screen	1	pcs
LED light with external switch	1	pcs
Inspection window	1	pcs

### Cooling coil, DX

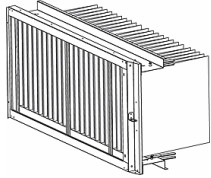


Air flow	2500	m <sup>3</sup> /h
Pressure drop air, wet coil with condensate droplets	87	Pa
Pressure drop air, dry coil	57	Pa
Air temperature before/after	35.0/18.0	°C
Air relative humidity before/after	45/86	%
Total cooling capacity	24.92	kW
Sensible cooling in % of total cooling	58	%
Face velocity	2.63	m/s
Condensate	0.3	l/min
Refrigerant	R410A	
Refrigerant temperature	6.0	°C
Coil volume	6.3	l
Connection side	Service side	
Connection size inlet/outlet	28 mm / 35 mm	
Number of circuits	1	
Tube material	Cu	
Fin material	Al	
Fin spacing	2.5	mm
No. of rows	6	
Drip tray material	Stainless steel	
Coil code	GXK-10-D65-3-6-15-375-758-2.5-CU-AL-H-28 mm	
Coil is for heat pump use		

Droplet eliminator	32	Pa
--------------------	----	----

### The extract unit consist of

#### Filter

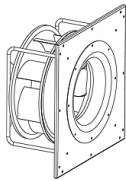


Dimensioning pressure drop	76	Pa
Initial pressure drop/Final pressure drop	38/114	Pa
Velocity, face area	2.24	m/s
Velocity, filter area	1.62	m/s
Filter class	M5 - ePM10 60%	
Filter size	1x[792x392x25]	
Filter length	520	mm
Filter description	Camfil Hi-Flo II XLT	
Inspection window	1	pcs
LED light with external switch	1	pcs
Magnehelic manometer	1	pcs
The manometer is supplied wired from factory.		

#### Rotary heat exchanger

Data are stated on supply.

#### Fan, Plug

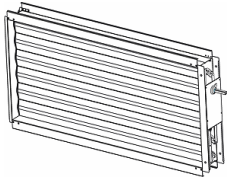


Air flow	2500	m <sup>3</sup> /h
External pressure	300	Pa
Pressure drop	17	Pa
Static pressure (Designed at wet conditions)	506	Pa
Total pressure	519	Pa
Fan speed	2203	RPM
Maximum fan speed	3000	RPM
Total efficiency by static pressure, incl. motor and speed control	62.1	%
Total efficiency by total pressure, incl. motor and speed control	63.7	%
K-factor (p=1.2 kg/m <sup>3</sup> )	106	
Fan type - Large	GR311-ZID.DC.CR	
ErP efficiency n(stat,A)	71.9	%
ErP efficiency class N(actual)/ N(target)	81.2 / 62	
ErP-conformity	Yes	
Direct drive		

#### Motor

Motor type	EC motor	
Motor types-size	ZID.DC.CR	
Motor protection	Built-in	
Rated power	1.30	kW
Speed (nominal)	3000	RPM
Current, Amp.	5.70	A
Voltage	1x230	V
Consumed power from mains power supply, including speed control	0.57	kW
Safety screen	1	pcs
LED light with external switch	1	pcs
Inspection window	1	pcs

### Damper



Pressure drop	2	Pa
Damper blades	Standard	
Number of dampers	1	pcs

### Other parts

#### Feet or baseframe

Feet or baseframe	Baseframe
Baseframe height	218 mm
Corrosion protection	Painted

#### Flexible duct connection, 30 mm EP/LSM profile

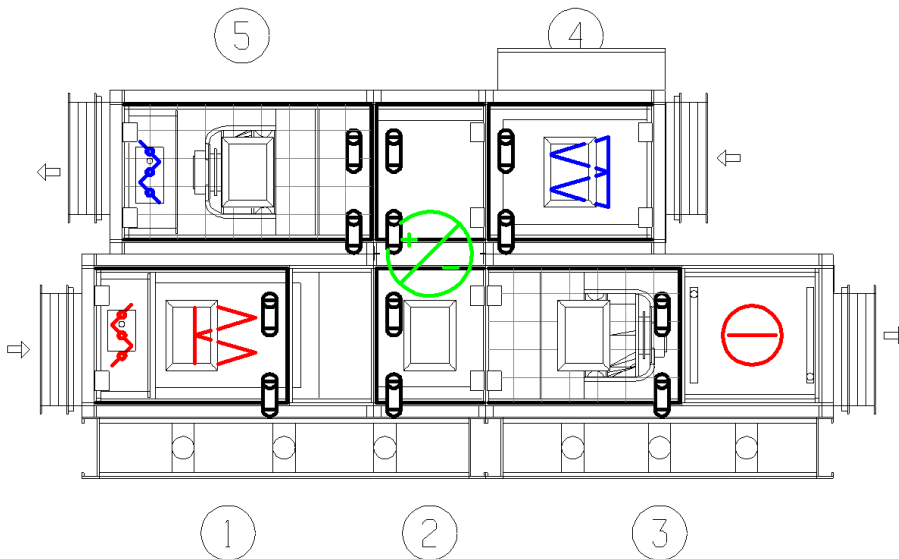
Product	Dimensions (width x height)
Outdoor	1000x400 mm
Supply	1000x400 mm
Extract	1000x400 mm
Exhaust	1000x400 mm

### Section about shipping

Product	Dimensions (width x height x length), incl. packaging	Weight, Inc. Packaging	Weight of unit
AHU1-1691	1182 x 1502 x 1691 mm	376 kg	375 kg
AHU2-1491	1182 x 1652 x 1491 mm	281 kg	280 kg

The unit sections are delivered mounted on base frame.

## Weights



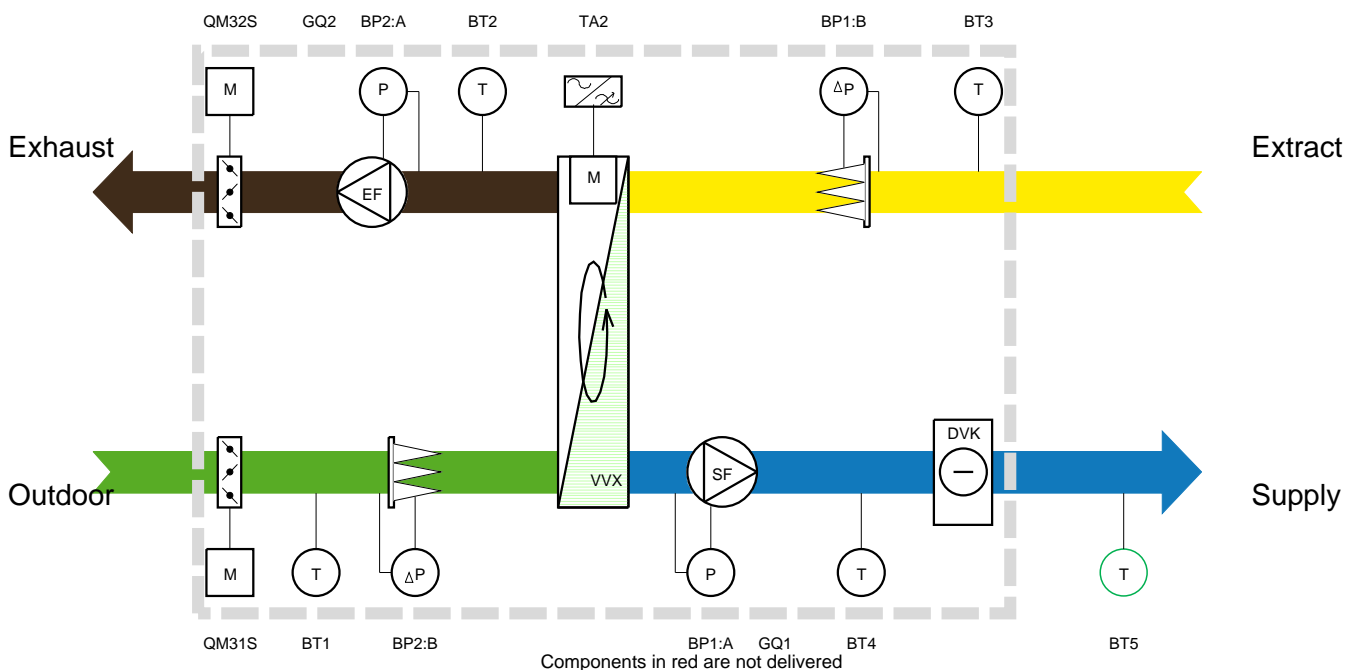
Section No	Section Code	Function Code	Weight of function kg	Weight of section kg
1	Casing Length 1041 mm			100
		Casing	74	
		Damper	10	
		Filter	16	
		Empty section	0.1	
2	Casing Length 400 mm			106
		Casing	48	
		Rotary heat exchanger	59	
3	Casing Length 1241 mm			174
		Casing	88	
		Fan	27	
4	Casing Length 641 mm			64
		Casing	49	
		Filter	15	
5	Casing Length 941 mm			103
		Casing	67	
		Fan	27	
6	Baseframe Length 1441 mm			56
		Baseframe Length 1241 mm		53
		Other components		31
	Weight of unit			688

## Integrated Systemair Access control system

The air handling unit is built with a complete and fully integrated control system - based on the Access control unit mounted in the control cabinet and the NaviPad control panel with a graphical user interface. The air handling unit can either run stand alone or handled from a building management system.

Before shipment the unit has been assembled and has passed a final functional test and inspection. Order-specific parameters are stored in the control unit during this process. The test report is delivered with the air handling unit.

## Flow chart



## Detailed technical specification

External components	Symbol Name	Cable number	Page/ Column	Terminals	HW I/O
Supply air temperature	BT5	W355	14 : 5	T81	U11
Normal speed	Ext. Sig.	W581	10 : 2	T31	DI2
Reduced speed		W580	10 : 1	T32	DI1
Unit stop		W583	10 : 4	T30	DI3
External fire signal	Fire		11 : 5	T25	DI8
Run indication			16 : 1	T65	DO5
Internal components					
Rotor drive	TA2	W232	36 : 7	F3: L1-N	
		W642	36 : 8	Link 2	BUS Adr. 7
Damper motor on/off spring return, supply	QM31S	W631	33 : 1	Link 1	BUS Adr. 21 (31)
Pressure over filter, supply	BP2:B	W662	30 : 2		DPT BP2: B

Outdoor air temperature	BT1	W341	30 : 1	BP2	DPT BP2: In1
Pressure transmitter - supply fan	BP1:A	W661	30 : 1	Link 1	BUS Adr. 5
EC fan, supply 1	GQ1	W601	31 : 1	Link 1	BUS Adr. 1
		W101'	23 : 6	F1: L2-N-PE	
Temperature efficiency	BT4	W343	29 : 1	BP1	DPT BP1: In2
Damper motor on/off spring return, extract	QM32S	W632	34 : 2	Link 2	BUS Adr. 22 (32)
Pressure over filter, extract	BP1:B	W661	29 : 2		DPT BP1: B
Extract temperature	BT3	W444	29 : 1	BP1	DPT BP1: In1
Exhaust/De-ice temperature	BT2	W442	30 : 2	BP2	DPT BP2: In2
Pressure transmitter - extract fan	BP2:A	W662	31 : 1	Link 2	BUS Adr. 6
EC fan, extract 1	GQ2	W602	32 : 1	Link 2	BUS Adr. 2
		W102'	24 : 6	F2: L1-N-PE	

### Control cabinet and mains supply

The control cabinet is placed as indicated in order confirmation material. The control cabinet holds necessary components including terminal blocks, fuses, 24VDC power supply and the Access control unit. The controller is configured according to the customer's order and confirmed in the order confirmation. Specification is also delivered with the unit. On site mains power supply must be connected to the cabinet. The installer on site has full responsibility to ensure that any unit/installation which requires additional protection of the mains power supply relating to frequency converters or any other such device is all carried out according to local statutory requirements.

The supply disconnecting device for the unit is not included.

### External electrical components

Temperature sensor for the supply air is delivered with 10 metres of cable, and must be connected to the terminals in the control cabinet by the installer on site.

The Access control unit is prepared for connection of delivered components and extra sensors that could be needed.

Control panel with 3 m cable is not connected to controller.

Depending on the customer's choice, external components are delivered, such as:

- pressure transmitters in ducts for pressure control
- valve for heating with heating coil
- temperature sensor for frost protection of the hot water heating coil
- electrical heating coil
- valve for cooling with chilled water.

NaviPad control panel with 3 m cable is not connected to the Access control unit from the factory.



### Access control unit and NaviPad control panel.

The NaviPad control panel with 7" capacitive touch panel and 3 m cable must be connected to the Access control unit in the control cabinet. All normal handling and configuration is carried out from the graphical user interface on the NaviPad control panel. The protection class of the NaviPad control panel is IP 54 and 0-50 C° permitted temperature. The NaviPad enclosure is not UV resistant and the NaviPad is not for outdoor mounting. Communication between the panel and the controller in the cabinet is possible with up to 100 meters of cable. The installer must use Standard PDS LAN network cable AWG23 (path cable) for extension.

If several units are connected to a local network (on the same subnet), the NaviPad will be able to connect and monitor up to nine units. Please see separate instruction for details

If more units are connected to a local network (same subnet), the panel will be able to connect and handle up to nine units. Please see separate instruction for details

### Schedules

The controller has individual schedules for start, stop and normal/reduced/high airflow rate for each weekday as well as schedules for holidays.

The controller has automatic summer-winter-time change over.

Outside normal operating hours, free cooling is available according to settings.

### Cooling recovery

If the extract air temperature is lower than the outdoor air temperature, and there is a cooling demand in the rooms, the cooling recovery will be activated. The heat exchanger signal is reversed to give increasing cooling recovery on increasing demand.

### Access rights - passwords

There are 3 different user levels

- End-user - (no password) - access to read values on the start page, see the flow diagram, possibility to start/stop the unit, adjust the temperature setpoint and activate extended running.
- Operator level (password) - access to read values, change user relevant settings concerning schedules, temperature, air flow and also to acknowledge alarms and to restart the system after having removed the reason that triggered the alarm.
- Service (special password) - access to make changes in configuration menus, access to store new settings, access to restart the unit according to user's own settings or original factory settings.

### Alarms and safety functions

If an alarm condition occurs, a circular light appear at the bottom of the control panel.

- Fixed green — Status ok (no active alarms).
- Flashing red — Active/returned alarms in one or more controllers.
- Fixed red — Acknowledged/blocked alarms in one or more controllers, alarms not reset

Alarms are logged in an alarm list. The list shows the type of alarm, date and time for the alarm and alarm class:

- Class A alarm - Needs to be acknowledged
- Class B alarm - Needs to be acknowledged
- Class C alarm - Returns when the cause of the alarm disappear

### Flexible System

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A qualified service technician - on the site and at the request of the user - will be able to adapt the regulation further to the requirements of the users;

- The air flow regulation can be changed between several methods that are constant air volume through the fans, constant pressure in the ducts, CO<sub>2</sub> dependant control or humidity dependant control. Temperature controlled airflow, which either decrease or increase airflow to achieve heating or cooling demand.
- The temperature control mode can be changed between room temperature control, supply air temperature control, extract temperature control and outdoor compensation of the selected temperature. Summer/winter dependent switching between extract air/room temperature control and supply air temperature control.
- In addition to the fixed schedule, an external start signal for extended operation is available, 3 levels
- In addition or as an alternative to the fixed schedule, an external stop input signal is available.
- A large number of other alternative functions are also optional.

### Recovery with rotary heat exchanger

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The capacity of the rotary heat exchanger is steplessly controlled via the modulated control of rotor speed.

### Free cooling

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If the outdoor/intake temperature exceeded a settable limit (22 degrees) during the previous day, the fans will start to cool down the building during the night (settable time period with default values 00.00 .... 07.00) as long time as the outdoor temperature is within af settable interval (default 18 degrees ..... 10 degrees). The function is only active before and after time scheduled operation. All parameters can be set individually. Default stop conditions is when extract/room temperature goes below 18 degrees (settable value) or if outdoor temperature goes outside the allowed interval. After 1 hour the system will start up again if all start conditions are met. Optional room- and outdoor temperature sensors will improve performance of this function.

### Extended running - normal, reduced speed, high speed and stop

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Extended running can be activated in 3 ways:

- Digital input for normal, reduced, high, stop.

- From the start page of the NaviPad at normal speed.
- Signal from BMS system for normal, reduced, high, stop.

### Communication to BMS systems via MODBUS RTU, RS485

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The controller has been prepared for communication via RS485 with MODBUS RTU based BMS system (Building Management System).

The controller can work as a stand-alone system without any support from other controllers or BMS systems.

### Cascaded extract temperature control

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The control of the supply air temperature is based on the values from 2 temperature sensors:

- a sensor inside the extract section giving the mixed average temperature from the rooms
- a sensor installed by the installer in the supply air duct.

The supply air temperature is controlled by a cascaded temperature controller to achieve a constant, settable extract temperature. The set points for the extract temperature as well as the temperature limits for the supply air temperature can be adjusted from the control panel. The output from the extract temperature PI-loop controls the supply air temperature.

### Air flow control - m<sup>3</sup>/h, l/s, m<sup>3</sup>/s, CFM

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The air flow rates of supply and extract air are controlled separately. The supply and extract air at low, normal, high airflow are set separately on the control panel.

On each fan a pressure transmitter measures the difference between the pressure before the fan and the pressure at the measuring probe in the inlet cone. Through a formula with a factor for each fan size, the output signal from the pressure transmitter is used to calculate the actual airflow.

A PID-controller maintains the set point value by controlling the speed of the fans.

### Supply fan with EC motor

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The supply air fan is driven by an EC motor with the impeller mounted directly on the motor. All parameters in the motor speed control have been configured and tested from factory.

### Extract fan with EC motor

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The extract air fan is driven by an EC motor with the impeller mounted directly on the motor. All parameters in the motor speed control have been configured and tested from factory.

### Cooling coil with direct expansion of refrigerant.

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The unit is delivered with DX coil, ready for connection to an external condenser unit.

Control signals are available from terminals in the switchboard - a 0-10 V DC signal for modulated capacity control. A number of settings is available for adapting to external units functionality. A digital potential free cooling demand signal is available on terminals in the switchboard.

## Damper motors

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Supplied and installed as in flow chart specification. Spring return models (S) will have running time of about 150/16 seconds. Non spring about 150 seconds. Modulated models indicated by round symbol.

## Filter guards

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Filter guards over bag filters are modulated. Pressure limit is depending on the flow. Low flow = low pressure limit, high flow = high limit. Transmitters are connected to the controller. From the display you can see actual pressure and set limits for alarm. Transmitters placed as indicated in flow chart.

Panel filter will have a pressure switch to give signal to the controller when set limit is exceeded.

## Prepared for external fire signals and run indication

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The unit is delivered with a potential free set of contacts for a unit run indication signal. A normally closed digital input signal is available to give the unit free for operation. If disconnected, fire is indicated and the unit will stop until the signal is re-connected.

## DX-cooling - control of capacity

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Signal from the controller is 0-10 V DC

IX diagram

Units	Geniox 10
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Plant no.

