

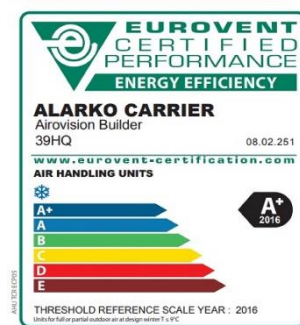
Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 024	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

GENERAL DATA

Customer reference	6.1.1 25000 12.12
Number off	1
Location	External (flat roof)
Delivery	In sections
AHU finish	Outside in standard colour (RAL 7035)
Product	Air handling unit
AHU configuration	Inline
Pallet option	Excluded
Lifting Beam	Included
Total weight (each)	kg 1532
(Radiated casework SWL)	dB(A) 69
ErP identification code	NRVU / UVU

Eurovent energy classification



Calculations conform to the Regulation for unidirectional ventilation unit (UVU) for delivery after 01.01.2018

Ecodesign 1253/2014 2018 UVU after 01.01.2018

Intermediate calculations

SFP int_limit (W/(m³/s))	230.0
SFP int (W/(m³/s))	117.5
n fan_limit (%)	55.2

Supply air unit data

Airflow (m³/s)	6.94
Static pressure (Pa)	792
p fan (kW)	8.44
n fan (%)	65.2
Fine Filter	Yes
dp Fine filter (Pa)	77

Check

Fan is selected with VSD	Passed
n fan_limit	Passed
SFP int	Passed
Filters equipped with pressure gauge	Passed
Total check	Passed

ACCESS DATA

Handle type	L-Handle	Pressure guard at positive pressure doors	Included
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SUPPLY DATA

Glasswool 23 kg/m ³ Type	39HQ 12.12	Air volume	m ³ /s	6.94
Casing construction	GP080 60 mm	Internal sheet		Galvanised 0.80mm
Design outdoor temperature	°C 9.0	External sheet		PUR-PA painted galvanized steel 0.80mm
Design outdoor temperature (summer)	°C 37.5	Insulation		Glasswool 23 kg/m ³
Design outdoor dew point (summer)	°C 16.8	Profile		Steel
Unit velocity	m/s 1.96	SFPv		
SFPe	kJ/m ³ 1.22		kJ/m ³	1.11

Mechanical performance according EN1886	Model box	D1	L1 (-400Pa)	L1 (+400Pa)	L1 (+700Pa)	F9	T2	TB2
	Real Unit		L2 (-400Pa)	L2 (+400Pa)	L2 (+700Pa)			

(Sound data supply SWL)	Hz	125	250	500	1k	2k	4k	8k	dB(A)
	dB	55	63	64	62	61	53	45	66
	dB	61	65	65	64	61	53	45	68
	dB	63	69	76	88	84	81	74	90

In direction of airflow, the unit comprises:

DELIVERY SECTION(S)

Section	Width (mm)	Height (mm)	Length (mm)	Baseframe (mm)	Weight (kg)	Weight (Lifting Beam) (kg)
1	2018	2018	3458	62	1117	26
2	2018	2018	98	62	46	
3	2018	2018	898	62	368	

EXHAUST COMPONENTS

SUPPLY COMPONENTS

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SINGLE MIXING BOX				
Opening Position		Top	Provided with:	
Number of Recirc openings		1	Opening product	None
Recirc opening, w x h	mm	1920 x 640	Damper	External, Opposed blades, Aluminium
Pressure drop	Pa	32	Number of Dampers	1
Actuator type		External	Damper Code	DMP1818x0538-200-162-3-D1Y2-0
Actuator Side		Left	Number of Drive shafts (Total) x Torque for one shaft	Nm 1 x 6
Access side		None	Provided with:	
Opening Position		Full face	Opening product	None
Number of openings		1	Damper	External, Opposed blades, Aluminium
Fresh air opening, w x h	mm	1920 x 1920	Number of Dampers	1
Pressure drop	Pa	3	Damper Code	DMP1818x1818-200-162-12-D2Y2-0
Actuator type		External	Number of Drive shafts (Total) x Torque for one shaft	Nm 2 x 22
Actuator Side		Left		
Access side		None		
Mixing ratio, winter (recirculation air/supply air) in %	%	0		

EXTRAS

1 x Coupling rod for dampers

COMBINED FILTER				
Primary filter type		Panel (Synthetic)	Secondary filter type	Bag (Synthetic)
Test method		EN 779 / ISO 16890	Test method	EN 779 / ISO 16890
EN 779 Class		G4	EN 779 Class	F7
Eurovent Efficiency Class		NA	Eurovent Efficiency Class	E
ISO 16890 Class		ISO Coarse 60	ISO 16890 Class	ISO ePM1 50
Design pressure drop		Mean pd	Design pressure drop	Mean pd
Initial pressure drop	Pa	63	Initial pressure drop	Pa 81
Mean pressure drop	Pa	88	Mean pressure drop	Pa 131
Final pressure drop	Pa	113	Final pressure drop	Pa 181
Filter casing material		Galvanised	Filter casing material	Galvanised
Filter frame material		Galvanised	Withdrawal method	Side
Filter length	mm	48	Filter length	mm 500

Filters

592x592	Qty	9	592x592	Qty	9
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ACCESS

Access type	Door	Access side	Right
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EXTRAS

2 x Pressure gauge wall mounted, Magnehelic 2000

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CHILLED WATER COIL			Number of coils		1
Coil Code	P25-10AR-5R-70T-1683A-2.0PA-60NC-Cu	0.36/Al 0.10-3"			
Air volume	m ³ /s	6.94	Fluid	100%	Water
Duty	kW	156.93	Fluid flow rate	l/s	7.47
Air on db	°C	27.0	Fluid on	°C	7.0
Air on wb/RH	°C/%	19.0/47	Fluid off	°C	12.0
Air off db	°C	13.0	Fluid content	l	62.95
Air off wb/RH	°C/%	12.4/94	Fluid pressure drop	kPa	49
Sensible duty	kW	116.67			
Air pressure drop coil (Dry)	Pa	92	Air pressure drop elim.	Pa	13
Tubes/fins/connections		Cu / Al / Fe	Connection type		Threaded (Right)
Coil frame		Galvanised	Connection size		3"
Tube thickness	mm	0.36	Fin spacing	mm	2.0
Tube Diameter	mm	9.2388	Fin thickness	mm	0.10
Face velocity	m/s	2.3			
Eliminator		Plastic – side withdrawal	Eliminator frame		Galvanised
Drainpan type		Recessed (sloped)	Drainpan material		Stainless steel 304
Drain pipes on drainpan		1	Intermediate drainpan		No
Condensed Water	l/min	0.9	Syphon Type		Negative
Coil Weight	kg	172.39	Xin/Yin/Xout/Yout	mm/mm/ mm/mm	207/98/107/107

EXTRAS
1 x Syphone

HOT WATER COIL			Number of coils		1
Coil Code	P25-10AR-2R-70T-1683A-2.0PA-55NC-Cu	0.36/Al 0.10-3"			
Air volume	m ³ /s	6.94	Fluid	100%	Water
Duty	kW	141.67	Fluid flow rate	l/s	6.84
Air on db	°C	8.0	Fluid on	°C	45.0
Air off db	°C	25.0	Fluid off	°C	40.0
Air pressure drop	Pa	30	Fluid content	l	38.17
			Fluid pressure drop	kPa	17
Tubes/fins/connections		Cu / Al / Fe	Connection type		Threaded (Right)
Coil frame		Galvanised	Connection size		3"
Tube thickness	mm	0.36	Fin spacing	mm	2.0
Tube Diameter	mm	9.2388	Fin thickness	mm	0.10
Face velocity	m/s	2.3	Xin/Yin/Xout/Yout	mm/mm/ mm/mm	206/98/106/106
Coil Weight	kg	102.07			

EXTRAS
1 x Syphone

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STEAM HUMIDIFIER					
Air volume	m ³ /s	6.94	Humidifier supplier		Condair
Moisture addition	kg/h	116	Number of steam lances		3
Air on db	°C	25.0	Steam lance length	mm	1500
Air on moisture content	g/kg	2.8			
Air on rh	%	32			
Air off db	°C	25.7			
Air off moisture content	g/kg	6.6			
Air off rh	%	32			
Steam boiler type 1		EL120	Power each	kW	3 x 30.0
Max steam capacity, each	kg/h	120	Current each	A	3 x 43.3
Number off		1	Voltage	V	3x400V, 50/60Hz
Boiler weight, each	kg	120			
Section length	mm	960	Drainpan material		Stainless steel 304
Drainpan		Included			

Note: Electric boilers will be delivered separately (not mounted on the unit). Boiler weights not included in unit weights.

ACCESS			
Access type	Door	Access side	Right

EXTRAS
1 x Syphone

ANY COMPONENT		
Pressure drop	Pa	0

INLET PLENUM		
Air pressure drop	Pa	0

ACCESS			
Access type	Door	Access side	Right

FAN									
Fan type		K3G450PB2405							
Fan arrangement		Fan Wall - 2B1							
Air volume	m ³ /s	3 x 2.31		Installed motor power	kW	5.25			
External static pressure	Pa	392		Motor		Run			
Internal static pressure	Pa	380		Motor efficiency class		IE4			
Static pressure ISP+ESP	Pa	772		Motor nominal speed	rpm	2600			
System effect	Pa	19		Voltage	V	380-480			
Extra static pressure	Pa	0		Current	A	8.0			
Total static pressure	Pa	792		Abs. motor power incl. F.I.	kW	2.81			
Dynamic pressure	Pa	67		Control Signal (0-10V)	V	7.09			
Total pressure	Pa	859		Fan bulkhead material		Galvanised			
Fan speed	rpm	2108							
Max fan speed	rpm	2600							
Efficiency (total)	%	69							
Fan shaft power	kW	2.81							
(Fan sound data SWL)	Hz	63	125	250	500	1k	2k	4k	8k
Total	Inlet dB	38	60	68	70	74	76	78	70
	Outlet dB	41	63	69	76	88	84	81	74

FAN EXTRAS
Inlet cone measuring points

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ACCESS		
Access type	Door	Access side
		Right

EXTRAS	
2 x Measuring nipple, 6mm	3 x Fanwall terminal box

OUTLET			
Opening Position		Full face	Provided with:
Number of openings		1	Opening product
Opening, width x height	mm	1920 x 1920	Duct spigot
Pressure drop	Pa	2	