

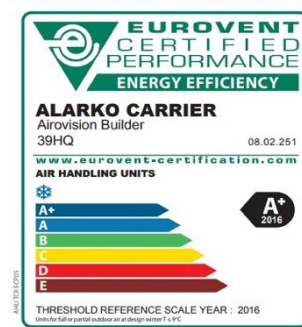
Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 003	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

GENERAL DATA

Customer reference	6.1.1 2500 05.04
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 439
(Radiated casework SWL)	dB(A) 56
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))	83.0
n fan_limit (%)	40.5

Supply air unit data

Airflow (m³/s)	0.69
Static pressure (Pa)	693
p fan (kW)	0.79
n fan (%)	61.2
Fine Filter	Yes
dp Fine filter (Pa)	51

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 05.04	Air volume	m ³ /s	0.69
Casing construction	GP080	Internal sheet		Galvanised 0.80mm
	60 mm			
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	1.52		
SFPe	kJ/m ³	1.13	SFPv	kJ/m ³ 0.99

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	45	62	62	51	52	43	35	61
	dB	45	62	62	51	52	43	35	61
	dB	50	67	69	71	72	71	63	77

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	898	738	1809	62	211	13
2	898	738	1009	62	88	
3	898	738	-382	62	18	
4	898	738	1218	62	120	

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	800 x 320	Damper		External, Opposed blades, Aluminium
Pressure drop	Pa	11	Number of Dampers		1
Actuator type		External	Damper Code		DMP0718x0238-110-102-2-D1Y1-0
Actuator Side		Left	Number of Drive shafts (Total) x Torque for one shaft	Nm	1 x 2
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	800 x 640	Number of Dampers		1
Pressure drop	Pa	2	Damper Code		DMP0718x0558-110-102-6-D1Y1-0
Actuator type		External	Number of Drive shafts (Total) x Torque for one shaft	Nm	1 x 5
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	40	Initial pressure drop	Pa	51
Mean pressure drop	Pa	65	Mean pressure drop	Pa	101
Final pressure drop	Pa	90	Final pressure drop	Pa	151
Filter casing material		Galvanised	Filter casing material		Galvanised
Filter frame material		Galvanised	Withdrawal method		Side
Filter length	mm	48	Filter length	mm	500

Filters

437x592	Qty	1	437x592	Qty	1
592x287	Qty	1	287x592	Qty	1

ACCESS

Access type	Hatch	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-22T-618A-2.0PA-8NC-Cu	0.36/Al 0.10-1"		
Air volume	m³/s	0.69	Fluid	100% Water
Duty	kW	15.69	Fluid flow rate	l/s 0.75
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 5.98
Air off wb/RH	°C/%	12.4/94	Fluid pressure drop	kPa 35
Sensible duty	kW	11.67		
Air pressure drop coil (Dry)	Pa	74	Air pressure drop elim.	Pa 10
Tubes/fins/connections		Cu / Al / Fe	Connection type	Threaded (Right)
Coil frame		Galvanised	Connection size	1"
Tube thickness	mm	0.36	Fin spacing	mm 2.0
Tube Diameter	mm	9.2388	Fin thickness	mm 0.10
Face velocity	m/s	2.0		
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	0.1	Syphon Type	Negative
Coil Weight	kg	22.14	Xin/Yin/Xout/Yout	mm/mm/mm/mm 164/50/76/76

EXTRAS

1 x Syphone

HOT WATER COIL			Number of coils	1
Coil Code	P25-10AR-2R-22T-618A-2.0PA-7NC-Cu	0.36/Al 0.10-1"		
Air volume	m³/s	0.69	Fluid	100% Water
Duty	kW	14.17	Fluid flow rate	l/s 0.68
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	23	Fluid content	l 2.90
			Fluid pressure drop	kPa 14
Tubes/fins/connections		Cu / Al / Fe	Connection type	Threaded (Right)
Coil frame		Galvanised	Connection size	1"
Tube thickness	mm	0.36	Fin spacing	mm 2.0
Tube Diameter	mm	9.2388	Fin thickness	mm 0.10
Face velocity	m/s	2.0	Xin/Yin/Xout/Yout	mm/mm/mm/mm 111/50/67/67
Coil Weight	kg	12.26		

EXTRAS

1 x Syphone

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STEAM HUMIDIFIER					
Air volume	m³/s	0.69	Humidifier supplier		Condair
Moisture addition	kg/h	12	Number of steam lances		1
Air on db	°C	25.0	Steam lance length	mm	650
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		EL15	Power each	kW	11.3
Max steam capacity, each	kg/h	15	Current each	A	16.2
Number off		1	Voltage	V	3x400V, 50/60Hz
Boiler weight, each	kg	27			
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	Hatch	Access side		Right

EXTRAS
1 x Syphone

ANY COMPONENT		
Pressure drop	Pa	0

INLET PLENUM		
Air pressure drop	Pa	0

ACCESS				
Access type	Hatch	Access side		Right

FAN									
Fan type		K3G310PT08J4			Installed motor power	kW	1.23		
Fan arrangement		Fan Wall - 1x1			Motor		Run		
Air volume	m³/s	0.69			Motor efficiency class		IE4		
External static pressure	Pa	392			Motor nominal speed	rpm	3010		
Internal static pressure	Pa	297			Voltage	V	380-480		
Static pressure ISP+ESP	Pa	689			Current	A	1.9		
System effect	Pa	4			Abs. motor power incl. F.I.	kW	0.79		
Extra static pressure	Pa	0			Control Signal (0-10V)	V	7.24		
Total static pressure	Pa	693							
Dynamic pressure	Pa	27			Fan bulkhead material		Galvanised		
Total pressure	Pa	721							
Fan speed	rpm	2557							
Max fan speed	rpm	3010							
Efficiency (total)	%	63							
Fan shaft power	kW	0.79							
(Fan sound data SWL)	Hz	63	125	250	500	1k	2k	4k	8k
Total	Inlet dB	34	50	67	68	63	67	68	60
	Outlet dB	35	50	67	69	71	72	71	63

FAN EXTRAS
Inlet cone measuring points



Date: 17/6/2022



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ACCESS

Access type

Hatch

Access side

Right

EXTRAS

2 x Measuring nipple, 6mm

1 x Fanwall terminal box

OUTLET

Opening Position

Full face

Provided with:

Number of openings

1

Opening product

Duct spigot

Opening, width x height

mm

800 x 640

Pressure drop

Pa

2