

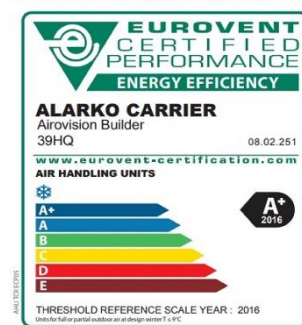
Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 014	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

GENERAL DATA

Customer reference	6.1.1 12500 09.08
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 913
(Radiated casework SWL)	dB(A) 62
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))	121.6
n fan_limit (%)	51.1

Supply air unit data

Airflow (m³/s)	3.47
Static pressure (Pa)	795
p fan (kW)	4.32
n fan (%)	64.0
Fine Filter	Yes
dp Fine filter (Pa)	78

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 ² Type	39HQ 09.08	Air volume	m ³ /s	3.47
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 2.00	SFPv		
SFPe	kJ/m ³ 1.24		kJ/m ³	1.10

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	58	61	60	61	58	45	39	64
	dB	60	62	61	62	58	46	39	65
	dB	64	67	74	79	78	74	68	83

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	1538	1378	3249	62	654	21
2	1538	1378	849	62	257	

EXHAUST COMPONENTS

SUPPLY COMPONENTS

SINGLE MIXING BOX

Opening Position		Top	Provided with:	
Number of Recirc openings		1	Opening product	None
Recirc opening, w x h	mm	1440 x 480	Damper	External, Opposed blades, Aluminium
Pressure drop	Pa	30	Number of Dampers	1
Actuator type		External	Damper Code	DMP1338x0378-200-162-2-D1Y1-0
Actuator Side		Left	Number of Drive shafts (Total) x Torque for one shaft	Nm 1 x 3
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	1440 x 1280	Number of Dampers	1
Pressure drop	Pa	3	Damper Code	DMP1338x1178-200-162-7-D1Y1-0
Actuator type		External	Number of Drive shafts (Total) x Torque for one shaft	Nm 1 x 6
Actuator Side		Left		
Access side		None		
Mixing ratio, winter (recirculation air/supply air) in %	%	0		

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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 82
Mean pressure drop	Pa 88	Mean pressure drop	Pa 132
Final pressure drop	Pa 113	Final pressure drop	Pa 182
Filter casing material	Galvanised	Filter casing material	Galvanised
Filter frame material	Galvanised	Withdrawal method	Side
Filter length	mm 48	Filter length	mm 500
Filters		Filters	
592x592	Qty 2	592x592	Qty 2
437x592	Qty 2	437x592	Qty 2
592x287	Qty 2	287x592	Qty 2

ACCESS
Access type Door Access side Right

EXTRAS
2 x Pressure gauge wall mounted, Magnehelic 2000

CHILLED WATER COIL

Coil Code	P25-10AR-5R-46T-1230A-2.0PA-31NC-Cu	Number of coils	1
Air volume	m ³ /s 3.47	Fluid	100% Water
Duty	kW 78.47	Fluid flow rate	l/s 3.74
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 26.58
Air off wb/RH	°C/% 12.4/94	Fluid pressure drop	kPa 50
Sensible duty	kW 58.33	Air pressure drop elim.	Pa 14
Air pressure drop coil (Dry)	Pa 97		
Tubes/fins/connections	Cu / Al / Fe	Connection type	Threaded (Right)
Coil frame	Galvanised	Connection size	2"
Tube thickness	mm 0.36	Fin spacing	mm 2.0
Tube Diameter	mm 9.2388	Fin thickness	mm 0.10
Face velocity	m/s 2.4		
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 0.4	Syphon Type	Negative
Coil Weight	kg 83.15	Xin/Yin/Xout/Yout	mm/mm/ mm/mm 190/63/81/81

EXTRAS
1 x Syphone

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HOT WATER COIL			Number of coils		1
Coil Code	P25-10AR-2R-46T-1230A-2.0PA-30NC-Cu 0.36/Al 0.10-2"				
Air volume	m ³ /s	3.47	Fluid	100%	Water
Duty	kW	70.83	Fluid flow rate	l/s	3.42
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	32	Fluid content	l	14.50
			Fluid pressure drop	kPa	17
Tubes/fins/connections		Cu / Al / Fe	Connection type	Threaded (Right)	
Coil frame		Galvanised	Connection size	2"	
Tube thickness	mm	0.36	Fin spacing	mm	2.0
Tube Diameter	mm	9.2388	Fin thickness	mm	0.10
Face velocity	m/s	2.4	Xin/Yin/Xout/Yout	mm/mm/ mm/mm	166/63/81/81
Coil Weight	kg	48.25			

EXTRAS
1 x Syphone

STEAM HUMIDIFIER					
Air volume	m ³ /s	3.47	Humidifier supplier	Condair	
Moisture addition	kg/h	58	Number of steam lances	2	
Air on db	°C	25.0	Steam lance length	mm	1200
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		EL60	Power each	kW	2 x 22.5
Max steam capacity, each	kg/h	60	Current each	A	2 x 32.5
Number off		1	Voltage	V	3x400V, 50/60Hz
Boiler weight, each	kg	80			
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			

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FAN									
Fan type		K3G500PA2375							
Fan arrangement		Fan Wall - 1x2		Installed motor power	kW	3.45			
Air volume	m ³ /s	2 x 1.74		Motor		Run			
External static pressure	Pa	392		Motor efficiency class		IE4			
Internal static pressure	Pa	391		Motor nominal speed	rpm	1910			
Static pressure ISP+ESP	Pa	783		Voltage	V	380-480			
System effect	Pa	12		Current	A	5.3			
Extra static pressure	Pa	0		Abs. motor power incl. F.I.	kW	2.16			
Total static pressure	Pa	795		Control Signal (0-10V)	V	7.24			
Dynamic pressure	Pa	25		Fan bulkhead material		Galvanised			
Total pressure	Pa	820							
Fan speed	rpm	1612							
Max fan speed	rpm	1910							
Efficiency (total)	%	65							
Fan shaft power	kW	2.16							
(Fan sound data SWL)	Hz	63	125	250	500	1k	2k	4k	8k
Total	Inlet dB	42	63	66	66	73	73	70	64
	Outlet dB	44	64	67	74	79	78	74	68

FAN EXTRAS
Inlet cone measuring points

ACCESS
Access type Door Access side Right

EXTRAS
2 x Measuring nipple, 6mm 1 x Fanwall terminal box

OUTLET			
Opening Position		Full face	
Number of openings		1	
Opening, width x height	mm	1440 x 1280	
Pressure drop	Pa	2	
Provided with:		Duct spigot	
Opening product			