

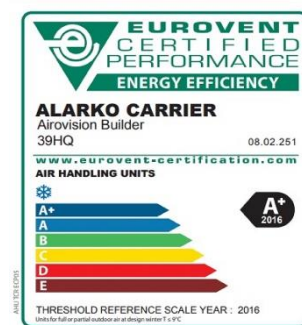
## Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 013	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

### GENERAL DATA

Customer reference	6.1.1 10000 10.06
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 852
(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))	112.3
n fan_limit (%)	49.3

#### Supply air unit data

Airflow (m³/s)	2.78
Static pressure (Pa)	777
p fan (kW)	3.27
n fan (%)	66.0
Fine Filter	Yes
dp Fine filter (Pa)	74

#### 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 <sup>3</sup> Type	39HQ 10.06	Air volume	m <sup>3</sup> /s	2.78
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 <sup>3</sup>
Design outdoor dew point (summer)	°C 16.8	Profile		Steel
Unit velocity	m/s 1.94	SFPv		
SFPe	kJ/m <sup>3</sup> 1.18		kJ/m <sup>3</sup>	1.06

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	63	63	62	61	59	43	67
	dB	62	65	65	64	61	59	43	68
	dB	64	68	76	88	82	85	72	91

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	1698	1058	3138	62	607	23
2	1698	1058	98	62	33	
3	1698	1058	1058	62	211	

### 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	1600 x 320	Damper	External, Opposed blades, Aluminium
Pressure drop	Pa	46	Number of Dampers	1
Actuator type		External	Damper Code	DMP1498x0218-200-162-1-D1Y2-0
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	1600 x 960	Number of Dampers	1
Pressure drop	Pa	3	Damper Code	DMP1498x0858-200-162-5-D1Y2-0
Actuator type		External	Number of Drive shafts (Total) x Torque for one shaft	Nm 1 x 9
Actuator Side		Left	Mixing ratio, winter (recirculation air/supply air) in %	0
Access side		None		

### 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		D
ISO 16890 Class		ISO Coarse 65	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	102
Mean pressure drop	Pa	65	Mean pressure drop	Pa	152
Final pressure drop	Pa	90	Final pressure drop	Pa	202
Filter casing material		Cardboard	Filter casing material		Galvanised
Filter frame material		Galvanised	Withdrawal method		Side
Filter length	mm	48	Filter length	mm	500

### Filters

592x592	Qty	2	592x592	Qty	2
287x592	Qty	3	287x592	Qty	1
287x287	Qty	1	592x287	Qty	2
			287x287	Qty	1

### 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-34T-1390A-2.0PA-25NC-Cu	0.36/Al 0.10-2"			
Air volume	m <sup>3</sup> /s	2.78	Fluid	100%	Water
Duty	kW	62.77	Fluid flow rate	l/s	2.99
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	21.43
Air off wb/RH	°C/%	12.4/94	Fluid pressure drop	kPa	46
Sensible duty	kW	46.67			
Air pressure drop coil (Dry)	Pa	91	Air pressure drop elim.	Pa	13
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	2.3			
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	0.4	Syphon Type		Negative
Coil Weight	kg	69.93	Xin/Yin/Xout/Yout	mm/mm/ mm/mm	190/63/81/81

EXTRAS  
1 x Syphone

HOT WATER COIL			Number of coils		1
Coil Code	P25-10AR-2R-34T-1390A-2.0PA-24NC-Cu	0.36/Al 0.10-2"			
Air volume	m <sup>3</sup> /s	2.78	Fluid	100%	Water
Duty	kW	56.67	Fluid flow rate	l/s	2.74
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	29	Fluid content	l	11.41
			Fluid pressure drop	kPa	13
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	2.3	Xin/Yin/Xout/Yout	mm/mm/ mm/mm	166/63/81/81
Coil Weight	kg	40.79			

EXTRAS  
1 x Syphone

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STEAM HUMIDIFIER					
Air volume	m <sup>3</sup> /s	2.78	Humidifier supplier		Condair
Moisture addition	kg/h	47	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

ACCESS			
Access type	Door	Access side	Right

FAN									
Fan type		K3G500PB3305							
Fan arrangement		Fan Wall - 1x1							
Air volume	m <sup>3</sup> /s	2.78	Installed motor power	kW	5.70	Motor	Run		
External static pressure	Pa	392	Motor efficiency class		IE4	Motor nominal speed	rpm	2250	
Internal static pressure	Pa	378	Voltage	V	380-480	Current	A	9.0	
Static pressure ISP+ESP	Pa	770	Abs. motor power incl. F.I.	kW	3.27	Control Signal (0-10V)	V	7.09	
System effect	Pa	6	Fan bulkhead material		Galvanised				
Extra static pressure	Pa	0							
Total static pressure	Pa	777							
Dynamic pressure	Pa	63							
Total pressure	Pa	840							
Fan speed	rpm	1864							
Max fan speed	rpm	2250							
Efficiency (total)	%	70							
Fan shaft power	kW	3.27							
(Fan sound data SWL)	Hz	63	125	250	500	1k	2k	4k	8k
Total	Inlet dB	37	63	68	69	74	76	84	68
	Outlet dB	42	64	68	76	88	82	85	72

FAN EXTRAS  
Inlet cone measuring points

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ACCESS  
 Access type Door Access side Right

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

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**OUTLET**

Opening Position		Full face	Provided with:	
Number of openings		1	Opening product	Duct spigot
Opening, width x height	mm	1600 x 960		
Pressure drop	Pa	2		