

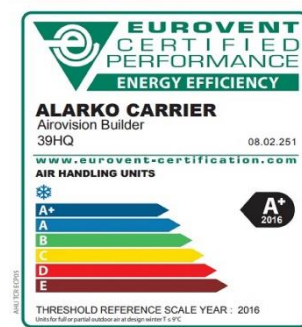
## Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 029	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

### GENERAL DATA

Customer reference	6.1.1 30000 20.08
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 1892
(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))	121.3
n fan_limit (%)	56.3

#### Supply air unit data

Airflow (m³/s)	8.33
Static pressure (Pa)	794
p fan (kW)	10.03
n fan (%)	66.0
Fine Filter	Yes
dp Fine filter (Pa)	80

#### 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
-------------	----------	---	----------

## Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 029	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

### SUPPLY DATA

Glasswool 23 kg/m <sup>2</sup> Type	39HQ 20.08	Air volume	m <sup>3</sup> /s	8.33
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 2.13	SFPv		
SFPe	kJ/m <sup>3</sup> 1.20		kJ/m <sup>3</sup>	1.12

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	58	43	67
	dB	62	65	65	64	61	58	43	68
	dB	63	69	76	88	82	85	73	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	3298	1378	2338	62	1117	30
2	3298	1378	2018	62	773	

### 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	3200 x 480	Damper	External, Opposed blades, Aluminium
Pressure drop	Pa	32	Number of Dampers	1
Actuator type		External	Damper Code	DMP3098x0378-200-162-2-D1Y2-0
Actuator Side		Left	Number of Drive shafts (Total) x Torque for one shaft	Nm 1 x 5
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	3200 x 1280	Number of Dampers	1
Pressure drop	Pa	3	Damper Code	DMP3098x1178-200-162-7-D1Y2-0
Actuator type		External	Number of Drive shafts (Total) x Torque for one shaft	Nm 1 x 12
Actuator Side		Left		
Access side		None		
Mixing ratio, winter (recirculation air/supply air) in %	%	0		

## Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 029	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

**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 65	Initial pressure drop	Pa 85
Mean pressure drop	Pa 90	Mean pressure drop	Pa 135
Final pressure drop	Pa 115	Final pressure drop	Pa 185
Filter casing material	Galvanised	Filter casing material	Galvanised
Filter frame material	Galvanised	Withdrawal method	Side
Filter length	mm 48	Filter length	mm 500
<b>Filters</b>		<b>Filters</b>	
592x592	Qty 8	592x592	Qty 8
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	P40-16AR-5R-30T-2903A-2.0PA-25NC-Cu	Number of coils	1
Air volume	m <sup>3</sup> /s 8.33	Fluid	100% Water
Duty	kW 188.32	Fluid flow rate	l/s 8.97
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 94.85
Air off wb/RH	°C/% 12.4/94	Fluid pressure drop	kPa 50
Sensible duty	kW 140.00	Air pressure drop elim.	Pa 14
Air pressure drop coil (Dry)	Pa 96		
Tubes/fins/connections	Cu / Al / Fe	Connection type	Threaded (Right)
Coil frame	Galvanised	Connection size	4"
Tube thickness	mm 0.41	Fin spacing	mm 2.0
Tube Diameter	mm 14.1872	Fin thickness	mm 0.13
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 1.1	Syphon Type	Negative
Coil Weight	kg 276.59	Xin/Yin/Xout/Yout	mm/mm/ mm/mm 244/90/106/106

**EXTRAS**

1 x Syphone

## Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 029	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

HOT WATER COIL			Number of coils		1
Coil Code	P40-16AR-2R-30T-2928A-2.0PA-21NC-Cu 0.41/Al 0.13-3"		Fluid	100%	Water
Air volume	m <sup>3</sup> /s	8.33	Fluid flow rate	l/s	7.73
Duty	kW	160.00	Fluid on	°C	45.0
Air on db	°C	8.0	Fluid off	°C	40.0
Air off db	°C	24.0	Fluid content	l	42.91
Air pressure drop	Pa	32	Fluid pressure drop	kPa	15
Tubes/fins/connections	Cu / Al / Fe		Connection type	Threaded (Right)	
Coil frame	Galvanised		Connection size	3"	
Tube thickness	mm	0.41	Fin spacing	mm	2.0
Tube Diameter	mm	14.1872	Fin thickness	mm	0.13
Face velocity	m/s	2.3	Xin/Yin/Xout/Yout	mm/mm/ mm/mm	198/78/92/92
Coil Weight	kg	134.48			
EXTRAS	1 x Syphone				

STEAM HUMIDIFIER			Humidifier supplier		Condair
Air volume	m <sup>3</sup> /s	8.33	Number of steam lances	4	
Moisture addition	kg/h	140	Steam lance length	mm	2500
Air on db	°C	25.0			
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	EL152		Power each	kW	4 x 28.5
Max steam capacity, each	kg/h	152	Current each	A	4 x 41.1
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 side		Right
Access type	Door				
EXTRAS	1 x Syphone				

EMPTY SECTION		
Pressure drop	Pa	0

INLET PLENUM		
Air pressure drop	Pa	0

ACCESS			Access side		Right
Access type	Door				

### Technical Specification

Project name :	Airovision Builder version: E1.13 (12-4-2022)(R086)/A
Quotation no. : 6.1 AHU Technical Guide / 029	Eurovent identification number: 08.02.251
Eurovent identification number: 08.02.251	

FAN									
Fan type		K3G500PB3305							
Fan arrangement		Fan Wall - 1x3			Installed motor power	kW	5.70		
Air volume	m³/s	3 x 2.78			Motor		Run		
External static pressure	Pa	392			Motor efficiency class		IE4		
Internal static pressure	Pa	395			Motor nominal speed	rpm	2250		
Static pressure ISP+ESP	Pa	787			Voltage	V	380-480		
System effect	Pa	8			Current	A	9.0		
Extra static pressure	Pa	0			Abs. motor power incl. F.I.	kW	3.34		
Total static pressure	Pa	794			Control Signal (0-10V)	V	7.15		
Dynamic pressure	Pa	63			Fan bulkhead material		Galvanised		
Total pressure	Pa	858							
Fan speed	rpm	1876							
Max fan speed	rpm	2250							
Efficiency (total)	%	70							
Fan shaft power	kW	3.34							
(Fan sound data SWL)	Hz	63	125	250	500	1k	2k	4k	8k
Total	Inlet dB	37	63	68	69	74	76	83	68
	Outlet dB	43	63	69	76	88	82	85	73

#### FAN EXTRAS

Inlet cone measuring points

#### 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	Duct spigot
Opening, width x height	mm	3200 x 1280		
Pressure drop	Pa	2		