

AL-KO THERM GMBH

Hauptstrasse 248-250
D-89343 Jettingen-Scheppach
Hoang Thang / External

Tel.: +49 8225/39-0
Fax: +49 8225/39-113
Tel.: 0917623584

Data sheet

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Klim@Soft Ver. 2.51 Page: 1

Project: **90496 - PAU Comparison**

Pos.: **2**

QUOTATION

Order #:

GS-pos.:

Proj. descr.:

Date printed:

02.12.2010

Unit: Concept 2-Extract&Rotary heatex - 1

Edition Date

12/2/2010

Type: AT4 16x12 / 16x12 - Interior

Piece: 1

Editor:

Hoang Thang

Note: All data relate to normal conditions for air density = 1.2 kg/m³

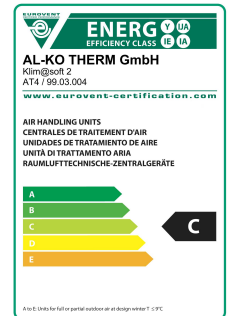
Unit data

Supply air

Exhaust air

	Target value	Actual	Target value	Actual
Air flow	10,000	10,000 m ³ /h	10,000	10,000 m ³ /h
External pressure	450	450 Pa	350	350 Pa
Internal pressure	777	777 Pa	396	396 Pa
Air speed		2.5 m/s		2.5 m/s

Eurovent Energy Efficiency Class C



SA - Damper outside

G 1

FU 0

Accessory

Type:

Damper outside

- Damper air tight, powder coated

Width:

1,224.0 mm

Height:

459 mm

Connector:

A20

Needed torque:

7 Nm

Design pressure:

31 Pa

SA - Filter - Z-line

G 1

FU 1

Accessory

Manufacturer type:

- Filter to maintenance side pull able, stainless steel (1.4301)

Class:

G4

- Maintenance door

Design pressure:

133 Pa

Initial pressure:

67 Pa

End pressure:

200 Pa

Airflow face speed:

2.5 m/s

Filter face surface:

6.0 m²

Filter length:

47 mm

Filter bag 592x592:

2

Filter bag 592x287:

2

Maintenance:

A - pull able

Air flow:

10,000 m³/h

SA - Filter - Biostat F5-500

G 1

FU 2

Accessory

Manufacturer type:

- Biostatic equipped Filter Medium

Class:

F5

- Quick change filter frame out of stainless steel (1.4301)

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Design pressure:	126 Pa	- Maintenance door
Initial pressure:	51 Pa	
End pressure:	200 Pa	
Airflow face speed:	2.5 m/s	
Filter face surface:	12.2 m ²	
Filter length:	508 mm	
Filter bag 592x592:	2	
Filter bag 592x287:	2	
Maintenance:	F - quick change filter frame	
Air flow:	10,000 m ³ /h	

Rotary heatex

G 2

FU 9

Accessory

Type:

Sorption

- Rotor with Sorptive Coating

Total Thermal Capacity: -195.2 kW

- Maintenance door

Thermal efficiency: 87.0 %

- Maintenance panel

Humidity exchange rate: 98.0 %

Energy recovery class: H1

operating state: 1

Supply air: 10,000 m³/h

Δ Pressure (S) : 144.3 Pa

Temperature IN: 36.8 °C

Rel. Humidity IN: 72.0 %

Abs. Humidity IN: 28.7 g/kgL

Temperature Out: 25.7 °C

Rel. Humidity OUT: 47.2 %

Abs. Humidity OUT: 9.7 g/kgL

Exhaust air: 10,000 m³/h

Δ Pressure (E): 144.3 Pa

Temperature IN: 24.0 °C

Rel. Humidity IN: 50.0 %

Abs. Humidity IN: 9.3 g/kgL

Temperature Out: 35.3 °C

Rel. Humidity OUT: 76.2 %

Abs. Humidity OUT: 28.0 g/kgL

Drive output: 180 W

Current: 0.70 A

Voltage: 230 V

Phase count: 3-phase

SA - Wärmetauscher - Cooling unit G 3

FU 3

Accessory

Type: PCW - Copper/Aluminium - A

- Coil installation rail made of stainless steel 1.4301

pressure drop (dry): 194 Pa

- droplet eliminator convertible

Pressure drop eliminator: 31 Pa

- Maintenance panel

Air flow speed: 3.08 m/s

- Base tub stainless steel 1.4301

Temperature Inlet: 25.7 °C

Rel. Humidity Inlet: 47.2 %

Abs. Humidity Inlet: 9.7 g/kgL

Temperature Outlet: 13.8 °C

Rel. Humidity Outlet: 98.1 %

Abs. Humidity Outlet: 9.6 g/kgL

Capacity: 40.6 kW

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Power reserve:	72 %
Medium:	Water
Glycol content:	0 %
Medium temperature IN:	7.0 °C
Medium temperature OUT:	12.0 °C
Max. medium pressure:	16 bar
Medium flow quantity:	6,953 l/h
Δp medium:	5.8 kPa
Δ fins:	2.5 mm
Rows:	10
Circuits:	56
Fill-up quantity:	27.5 l
Pipes:	Copper
Fins:	Aluminium
Collector:	Copper
Frame:	Aluminium
Connection type:	A - water connection straight sideways
Connection width:	DN 65 (R 2-1/2)
Interwinded circuits:	2
Air flow:	10,000 m³/h

SA - Wärmetauscher - Heating coil G 3

FU 4

Accessory

Type:	PWW - Copper/Aluminium - A
pressure drop (dry):	24 Pa
Air flow speed:	3.15 m/s
Temperature Inlet:	14.0 °C
Rel. Humidity Inlet:	98.0 %
Abs. Humidity Inlet:	9.8 g/kgL
Temperature Outlet:	20.0 °C
Capacity:	20.5 kW
Power reserve:	82 %
Medium:	Water
Glycol content:	0 %
Medium temperature IN:	80.0 °C
Medium temperature OUT:	60.0 °C
Medium flow quantity:	880 l/h
Δp medium:	33.3 kPa
Δ fins:	3.0 mm
Rows:	1
Circuits:	2
Fill-up quantity:	5.0 l
Pipes:	Copper
Fins:	Aluminium
Collector:	Copper
Frame:	Galvanised steel
Frame to hold frost protection equipment:	Without
Connection type:	A - water connection straight sideways
Connection width:	DN 25 (R 1)
Interwinded circuits:	2
Air flow:	10,000 m³/h

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SA - Fan - RZR 15 - 400

G 3

FU 5

Accessory

Fan type: RZR 15-400
 Air flow: 10,000 m³/h
 Static increase of pressure: 1,228 Pa
 Total pressure: 1,340 Pa
 Casing pressure drop: 64 Pa
 Capacity on shaft: 4.5 kW
 Static efficiency: 75 %
 total efficiency: 82 %
 Revolution: 2,317 1/min
 Max. speed: 3,600 1/min
 Motor: 0
 Model: 1LE1002-1CA03-4AB0
 Control type: FC
 Revolution: 2,935 1/min
 Working Frequency: 50 Hz
 max. Frequency: 50 Hz
 Power input: 5.7 kW
 Power PM-FU: 6.01 kW
 SFP value (EnEV 2009): 1,213 W/(m³/s)
 SFP class: SFP 3
 Speed Class: V3
 Nominal rated voltage: 400/690 V
 Power Frequency: 50 Hz
 Nominal rated capacity: 5,5 kW
 Nominal rated current: 10,6/6,14 A
 Nominal rated speed(s): 2905 /min
 Protection class: IP55
 Overload protection: PTC thermistor
 Insulation class: F
 Drive: 0
 Belt profile: SPZ
 Belt length: 1,600 mm
 Number of belts: 1
 Ømotor pulley: 150 mm
 Øfan pulley: 190 mm
 Belt tension check force: 22 N
 Belt deflection: 9 mm
 Sound Power Level Inlet: 87.6 dB(A)
 Sound Power Level Outlet: 86.7 dB(A)
 Octave band: 63 125 250 500 1k 2k 4k 8k Hz
 Lw Inlet: 81 84 83 87 82 79 74 67 dB
 Lw Outlet: 86 85 84 85 82 78 73 65 dB
 Air flow: 10,000 m³/h

- FR-O.LEU. 60W IP 44
 - Light Switch
 - Repair switch for frequency converter
 - Grommet M20
 - Fan base powder coated
 - Nozzle frame coated
 - Motor slide powder coated
 - Fan pressure wall powder-coated
 - Fan - Powder Coating
 - Maintenance door

SA - Empty section

G 4

FU 10

Accessory

Specification:

Empty section

Length:

5 AT4 raster

Data sheet

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SA - Damper outside

G 4

FU 0

Accessory

Type: Damper outside - Damper air tight, powder coated
 Width: 1,224.0 mm
 Height: 459 mm
 Connector: A20
 Needed torque: 7 Nm
 Design pressure: 31 Pa

EA - Damper outside

G 5

FU 0

Accessory

Type: Damper outside - Damper air tight, powder coated
 Width: 1,224.0 mm
 Height: 459 mm
 Connector: A20
 Needed torque: 7 Nm
 Design pressure: 31 Pa

EA - Empty section

G 5

FU 11

Accessory

Specification: Empty section
 Length: 5 AT4 raster

EA - Filter - Biostat F5-500

G 5

FU 6

Accessory

Manufacturer type: - Biostatic equipped Filter Medium
 Class: F5 - Quick change filter frame out of stainless steel (1.4301)
 Design pressure: 126 Pa - Maintenance door
 Initial pressure: 51 Pa
 End pressure: 200 Pa
 Airflow face speed: 2.5 m/s
 Filter face surface: 12.2 m²
 Filter length: 508 mm
 Filter bag 592x592: 2
 Filter bag 592x287: 2
 Maintenance: F - quick change filter frame
 Air flow: 10,000 m³/h

EA - Fan - RZR 11 - 400

G 5

FU 7

Accessory

Fan type: RZR 11-400 - FR-O.LEU. 60W IP 44
 Air flow: 10,000 m³/h - Light Switch
 Static increase of pressure: 746 Pa - Repair switch for frequency converter
 Total pressure: 858 Pa - Grommet M20
 Casing pressure drop: 64 Pa - Fan base powder coated
 Capacity on shaft: 3.0 kW - Nozzle frame coated
 Static efficiency: 68 % - Motor slide powder coated
 total efficiency: 79 % - Fan pressure wall powder-coated
 Revolution: 2,000 1/min - Fan - Powder Coating
 Max. speed: 3,027 1/min - Maintenance door
 Motor: 0
 Model: 1LE1002-1BB23-4AB0
 Control type: FC

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Type: AT4 16x12 / 16x12 - Interior

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Revolution:	1,500 1/min
Working Frequency:	52 Hz
max. Frequency:	52 Hz
Power input:	3.9 kW
Power PM-FU:	4.15 kW
SFP value (EnEV 2009):	967 W/(m ³ /s)
SFP class:	SFP 3
Speed Class:	V3
Nominal rated voltage:	400/690 V
Power Frequency:	50 Hz
Nominal rated capacity:	4 kW
Nominal rated current:	8,2/4,75 A
Nominal rated speed(s):	1435 /min
Protection class:	IP55
Overload protection:	PTC thermistor
Insulation class:	F
Drive:	0
Belt profile:	SPZ
Belt length:	1,662 mm
Number of belts:	1
Ømotor pulley:	200 mm
Øfan pulley:	150 mm
Belt tension check force:	22 N
Belt deflection:	9 mm
Sound Power Level Inlet:	86.0 dB(A)
Sound Power Level Outlet:	85.1 dB(A)
Octave band:	63 125 250 500 1k 2k 4k 8k Hz
Lw Inlet:	76 79 78 85 81 78 73 65 dB
Lw Outlet:	80 80 80 83 81 77 72 63 dB
Air flow:	10,000 m ³ /h

Rotary heatex

G 2

FU 9

Accessory

See above

EA - Empty section

G 6

FU 8

Accessory

Specification:

Empty section

Length:

5 AT4 raster

EA - Damper outside

G 6

FU 0

Accessory

Type:

Damper outside

- Damper air tight, powder coated

Width:

1,224.0 mm

Height:

459 mm

Connector:

A20

Needed torque:

7 Nm

Design pressure:

31 Pa

Unit features:

Frame material

Galvanised steel

Data sheet

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Panel material	7001/7001
Unit corner material (frame)	Plastic
Sealing supply side	Incl. intergrated parts (Hygiene)
Siphon	Standard siphon
Transport	Standard transport
Base frame	100 mm

Dimensions

Transport weight

Length:	5,431 mm	Width:	2,218 mm	Height:	2,371 mm	2,439 kg
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***** END OF LIST *****