



Systemair Configurator MagiCAD Cloud Plugin for AutoCAD

13/04/2026

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1 General

1.1 About This Document

This document contains instructions on using *Systemair Configurator MagiCAD plugin for AutoCAD*. The plugin allows inserting air handling units and axial fans from Systemair Configurator to MagiCAD for AutoCAD and AutoCAD.

1.2 Installing the Software

1.2.1 Required Third-party Software

Systemair Configurator MagiCAD plugin works with the following MagiCAD and AutoCAD versions:

- MagiCAD for AutoCAD 2026 and AutoCAD 2023-2026
- MagiCAD for AutoCAD 2027 and AutoCAD 2023-2027

1.2.2 Installation

1. Download setup file from
<https://portal.magicad.com/download/ProductSearch?searchStr=Systemair&categoryId=3>
2. Install Systemair MagiCAD plugin for AutoCAD.

Administrator privileges are recommended for the installation. **Note if you have several AutoCAD versions on your workstation:**

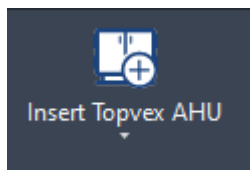
Before you run the installation program, start MagiCAD to make sure that *Systemair Configurator MagiCAD plugin* installs on the same AutoCAD platform as MagiCAD. The plugin will be installed to the AutoCAD version which opened last.

2 Functions for Air Handling Units

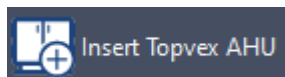
2.1 MagiCAD Plugin User Interface

2.1.1 Main Functions

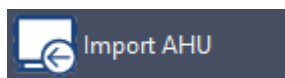
The plugin's main functions for air handling units can be found in *MagiCAD Connect* menu from AutoCAD.



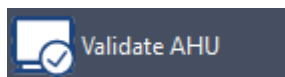
The plugin contains following functions for air handling units:



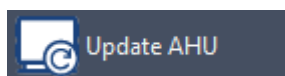
Opens the Systemair Configurator web application from where the air handling units can be created and configured. The user can choose products to be inserted into the drawing.



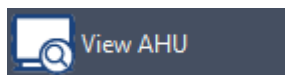
Opens a file dialog from where the user can choose a .mah file and import the air handling unit into the drawing. The same feature also works for air handling units from SystemairCAD software.



Runs a validation on the Systemair Configurator air handling unit. The plugin checks if the user needs to run the update function. The same feature also works for air handling units from SystemairCAD software.

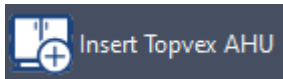


Updates the selected Systemair Configurator air handling unit by opening Systemair Configurator web application. The selected air handling unit will be replaced/updated to the drawing. The same feature also works for air handling units from SystemairCAD software.



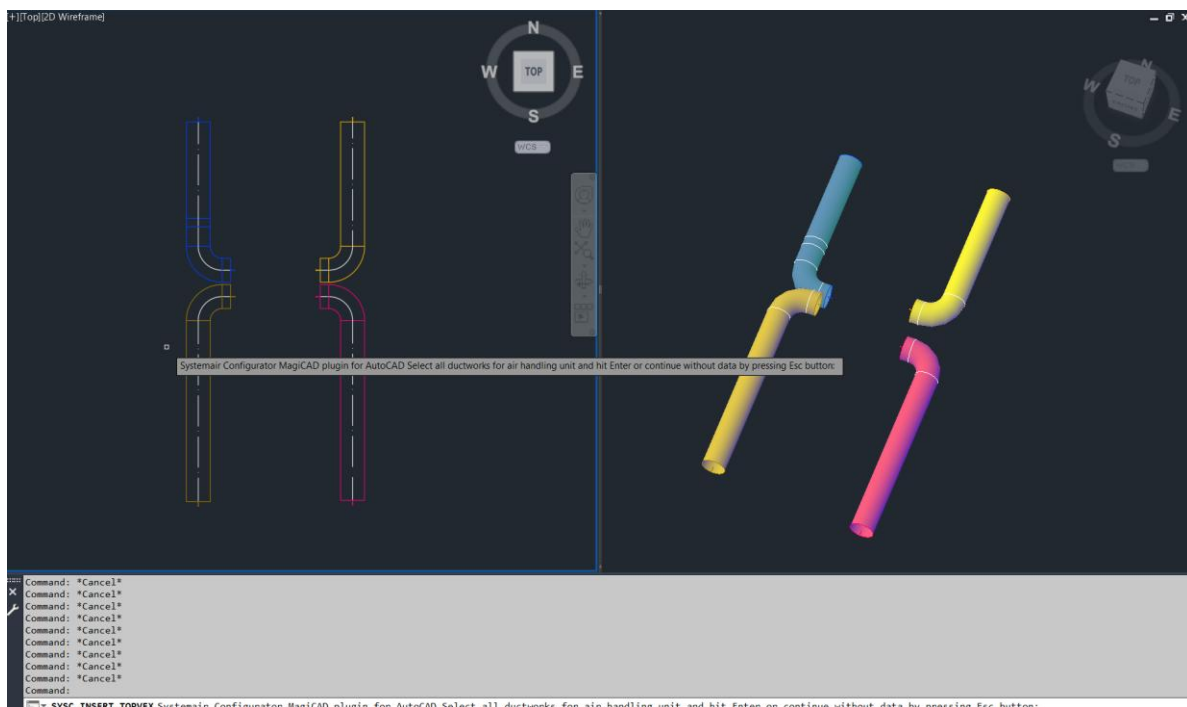
Allows user to view technical data of the selected product. The selected product can be air handling unit or duct component which is dimensioned by Systemair Configurator web application. The same feature also works for air handling units from SystemairCAD software.

2.2 Insert Topvex AHU



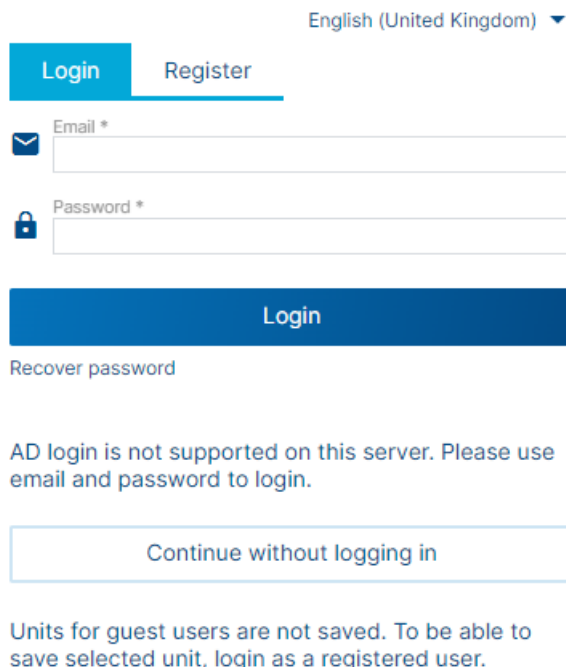
Follow these steps for Inserting Systemair Topvex air handling unit into MagiCAD/AutoCAD drawing:

1. Click *Insert Systemair Topvex AHU* button from plugin ribbon panel in AutoCAD.
2. If the MagiCAD drawing is opened, the plugin asks to point ductworks for getting airflows, pressure drops and MagiCAD systems. This phase can be skipped by pressing Esc button.



The ducts can be selected with AutoCAD multiselecting tool or one by one.

3. Systemair Configurator web application is started. If the user has not already logged in to the Systemair Configurator, the username and password are requested from the user.



The screenshot shows the login interface of the Systemair Configurator web application. At the top right, there is a language selector set to 'English (United Kingdom)'. Below this, there are two tabs: 'Login' (active) and 'Register'. The 'Login' tab contains two input fields: 'Email *' with an envelope icon and 'Password *' with a lock icon. Below these fields is a large blue 'Login' button. Under the button is a link for 'Recover password'. A message states: 'AD login is not supported on this server. Please use email and password to login.' Below this message is a button labeled 'Continue without logging in'. At the bottom, a note says: 'Units for guest users are not saved. To be able to save selected unit, login as a registered user.'

Note. If you do not have a user account, you can register for one under the register tab. After registration a confirmation mail is sent to the supplied email address. The confirmation will open in the web browser. At this point, be careful not to start working in your web browser. After the confirmation close it.

4. Once the user has logged in, the project page is displayed. On this page the user can create and modify Projects that then contain air handling units. Projects have a wide variety of defaults that can be set according to the project need.
5. Adding a unit to the project opens the dialog from where the user can search for a suitable unit. If ducts were selected in step 2, the data read from the ducts will be prefilled in corresponding fields in the Systemair Configurator.

Systemair Configurator MagiCAD plugin for AutoCAD

systemair Projects • Project • Add product Finland: FI 1.32.1 April 2023

Topvex Search name or item number...

Installation type: False ceiling **Side** Top
Heat exchanger: **Rotating** Counter flow None (supply unit)
Installation: **Indoor** Outdoor
Heater type: **Water coil** Electric heater No heating

Air flow: Supply 300 Extract 300 l/s
Pressure: 165 165 Pa

Temperature and Humidity

Heater options
Calculation based on: Fluid and ...
Inlet fluid temperature: 50.0 °C
Outlet fluid temperature: 30.0 °C
Outlet air temperature: 20.0 °C

Efficiency requirements
SFPv limit: 2.00 kW/(m³/s)

Reset Search

Name	SFPv [kW/(m ³ /s)]	Temperature efficiency (wet) [%]	Heater capacity [kW]	Supply temperature [°C]
Topvex SR20-R-HWH	1.77	81.0	2.62	20.1
Topvex SR20-R-HWL	1.76	81.0	1.69	17.5
Topvex SR25-R-HWH	1.27	83.6	2.18	20.1
Topvex SR25-R-HWL	1.26	83.6	1.79	19.0

Side
Side connected units are special designed for floor installation with optimised unit height, thus horizontal duct connections. All models have an insulated casing with integrated fans, filters, control system and heat exchanger. The model range has alternative re-heater variants and a various combination of accessories.

Topvex SR
Compact unit with rotary heat recovery, available in 5 sizes with airflows up to 5,940 m³/h
Topvex SR is a series of compact air handling units with rotary heat recovery.
Topvex SR is equipped with rotary heat exchanger. Efficient EC fans provide improved sound performance and energy efficiency.
The unit is available for constant or demand controlled airflow and is supplied complete with controls to facilitate installation and commissioning. As standard Topvex also have several integrated possibilities of connecting to building management systems.

Rotary
The rotary heat exchanger has a high efficiency up to 85%-90% depending on operating conditions. It can recover moisture and is the heat exchanger that requires the least space.



A unit can be created either by searching by name (top left corner)

Create unit by name or item no.

Type here

t

Topvex SF02 EL 4,5kW - 39392 (Topvex)

Topvex SF02 EL 9kW - 39393 (Topvex)

Topvex SF02 HWL - 39394 (Topvex)

Topvex SF02 HWH - 39395 (Topvex)

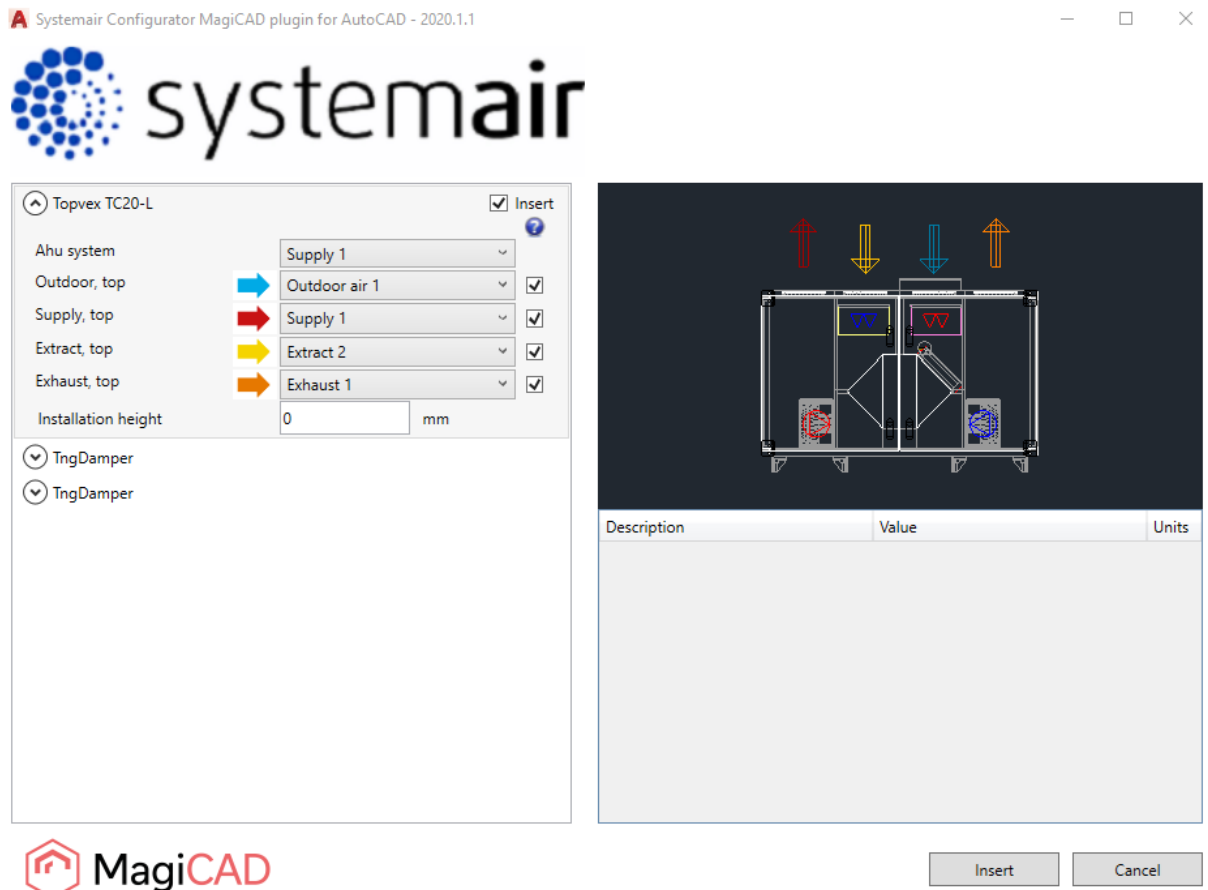
Topvex SF03 EL 7,7kW - 39396 (Topvex)

Extract external pressure 40 Pa

Or by doing a search using airflow and pressure drop data.

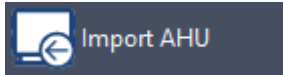
- After a suitable unit has been found the user supplies the unit data. Once the unit is ready press the "Result" button in the ribbon on left to start the calculations.
- If the air handling unit calculations are successful, the *Export to CAD* button is displayed. Pressing the button will close the browser window and start inserting into AutoCAD. Closing the browser window will abort the insert operation.
- The AutoCAD installation dialog is displayed. Geometry of the product is displayed on the top right side. The product can be zoomed with the mouse wheel.

Before installing the product to the drawing, the user needs to select MagiCAD system (if MagiCAD drawing is available) for each duct connection (for each product installed to the drawing). Also, installation height of the product can be defined here.



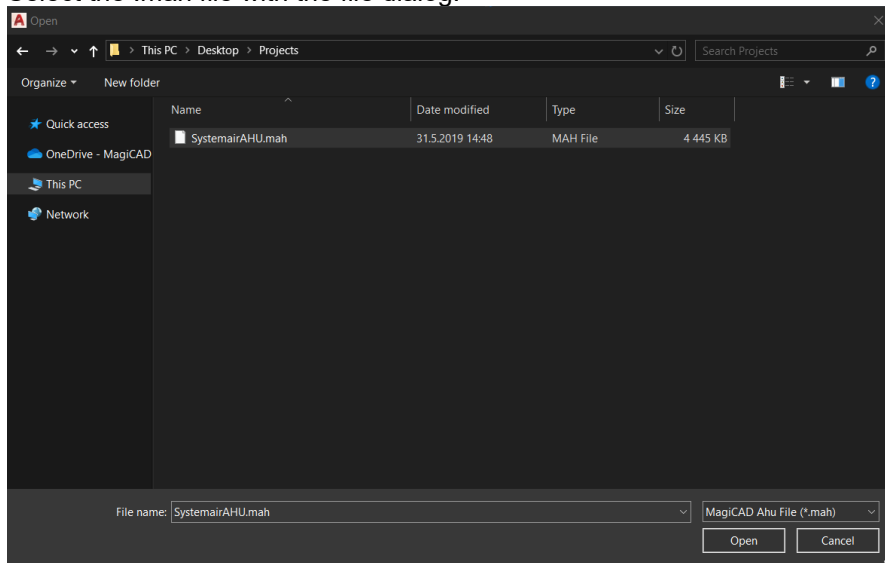
9. Once MagiCAD systems have been defined for all products, the installation can be started by clicking the *Insert* button. Please note that it is possible to uncheck insert checkbox in case you want to exclude some of the units from the insert operation.
10. The products can be placed to the drawing one by one by dragging them to wanted position in the drawing.

2.3 Import Topvex AHU



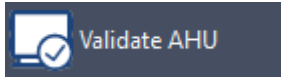
Follow these steps for importing a Systemair Topvex air handling unit into MagiCAD/AutoCAD drawing:

1. Click *Import Systemair Topvex AHU* button from plugin ribbon panel in AutoCAD.
2. Select the .mah file with the file dialog.



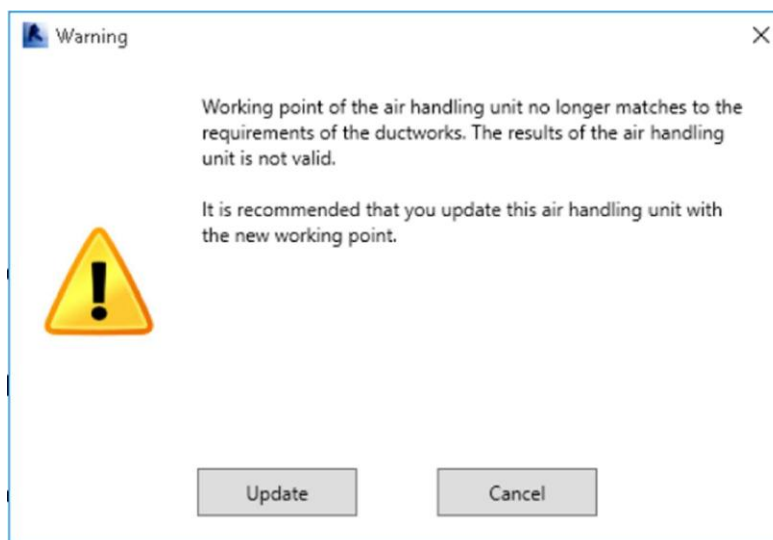
3. After clicking the *Open* button, the air handling unit in the .mah file is inserted into the drawing using the same workflow described in the Insert Topvex AHU chapter step 8.

2.4 Validate AHU

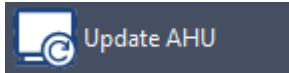


Follow these instructions to validate a Systemair air handling unit.

1. Click *Validate AHU* button from plugin ribbon panel in AutoCAD.
2. Select the air handling unit from the drawing that should be validated.
3. The plugin shows if validating is successfully passed or if the air handling unit needs to be updated. If updating is needed, the user can continue to update or cancel the validation. Validation checks if selected air handling unit still meets the requirements of the ductwork (air flow and pressure drop). There is 5% tolerance before the warning message is displayed for airflow and 10% tolerance for pressure drop.

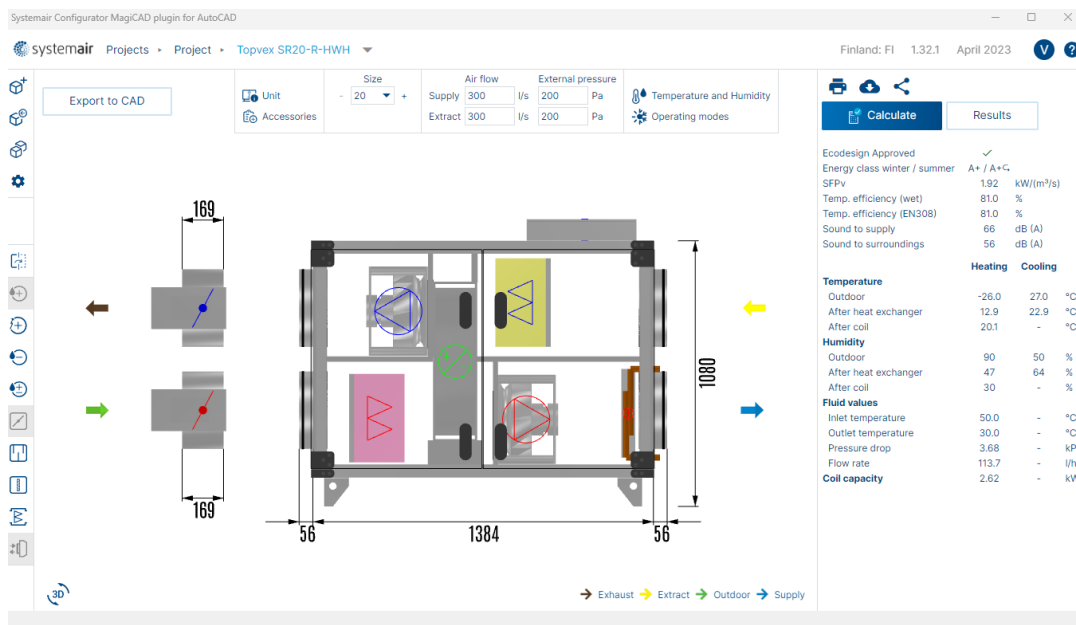


2.5 Update AHU



Please follow these steps to update Systemair Configurator air handling unit into MagiCAD drawing:

1. Click *Update AHU* button from plugin ribbon panel in AutoCAD.
2. Select the air handling unit from the drawing which will be updated.
3. The selected air handling unit is opened from the Systemair Configurator. The plugin automatically passes the updated airflow and pressure drop requirements from the duct connections in the drawing to the Systemair Configurator.



The user can change the predefined air handling unit type or edit unit properties.

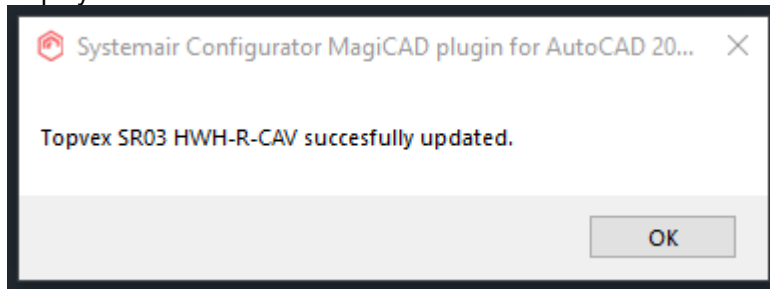
4. When the active air handling unit is configured and recalculated without errors, the user can click *Export to CAD* button.

Please note that the selected unit in the Configurator must be the same (same ID) than the selected unit from the MagiCAD.

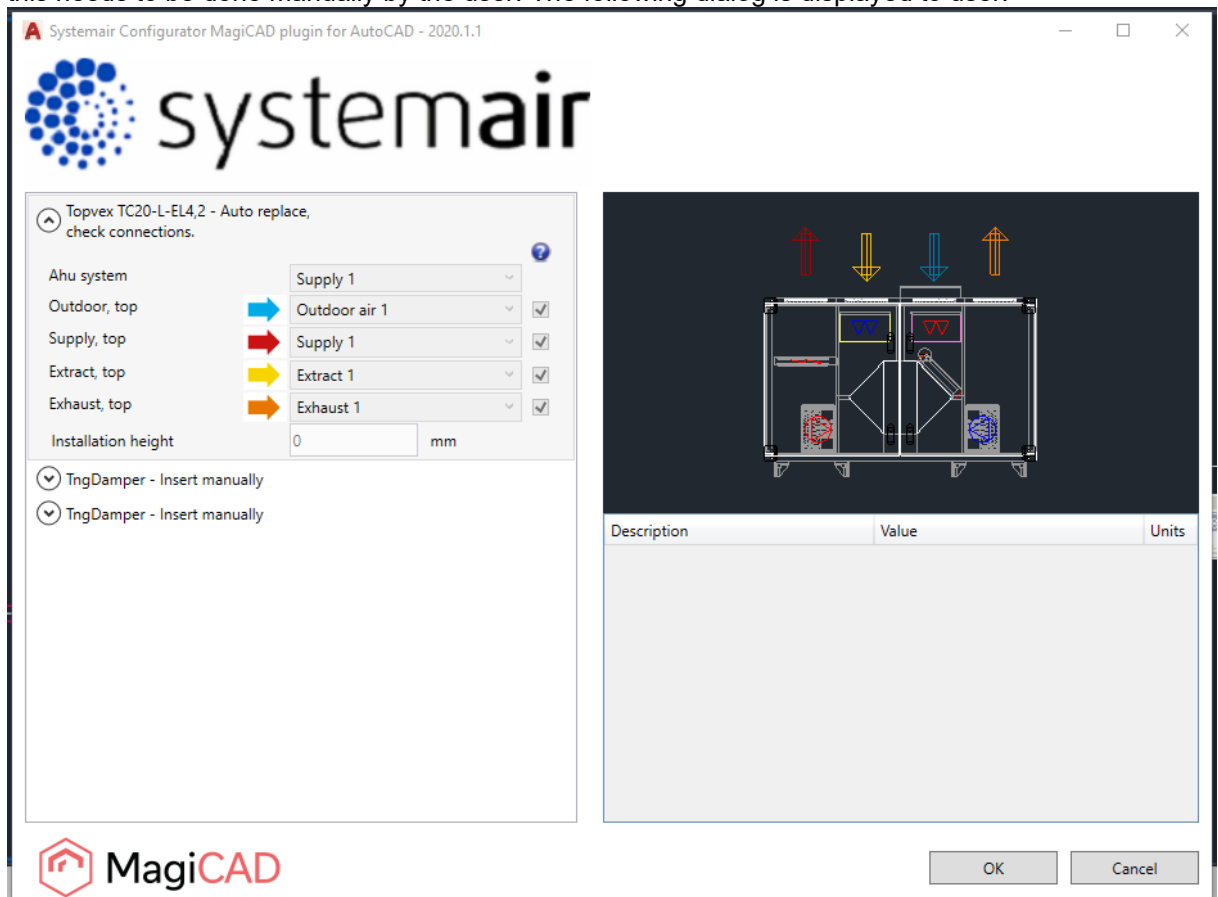
5. The plugin will perform compare operation in order to validate whether the original air handling unit has been changed to a different kind of the air handling unit during the update operation in Systemair Configurator.

If the air handling unit is still exactly the same, only technical data (such as sound data) is updated to the existing air handling unit in the drawing. The following message will be

displayed:

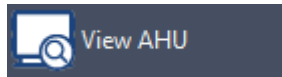


In case the air handling unit has been changed (or switched to a completely another one), the plugin performs replace operation. In the replace operation the plugin deletes the original air handling unit from the drawing and places a new unit to the same position with the same MagiCAD system selections. The plugin will, however, not connect the new unit to the ducts, this needs to be done manually by the user. The following dialog is displayed to user:



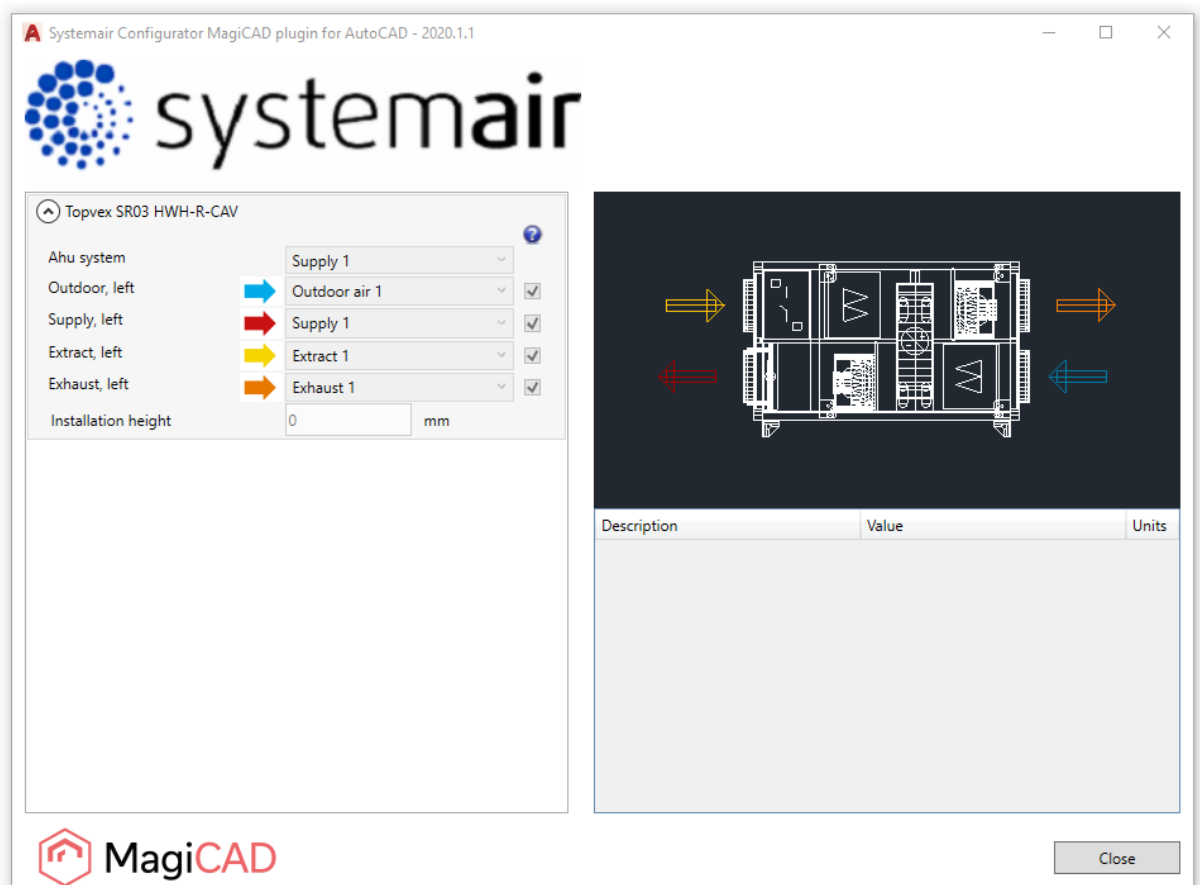
This dialog is purely informative, no actions are required. If the new duct components are added during update, those will be inserted to the drawing at this point. The user can see from the dialog which MagiCAD systems are automatically selected for the new air handling unit. The user can exit the dialog by clicking OK button.

2.6 View AHU data



Follow these steps for viewing Systemair Configurator air handling unit data:

1. Click *View AHU data* button from the plugin ribbon panel in AutoCAD.
2. The installation dialog will be shown. This dialog is the same as in the *Insert Topvex AHU* procedure. Only difference is that the MagiCAD systems, enable/disable the duct connections and the installation height are not enabled.



3 Functions for Axial Fans

3.1 MagiCAD Plugin User Interface

3.1.1 Main Functions

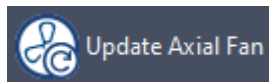
The plugin main functions for axial fans can be found in *MagiCAD Connect* menu from AutoCAD.



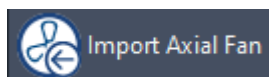
The plugin contains following functions for axial fans:



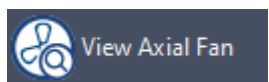
Opens the Systemair Configurator web application where the axial fans can be selected and configured. The user can choose products to be inserted into the drawing. The axial fan can also contain accessories.



Updates the selected axial fan by opening Systemair Configurator web application. The selected axial fan will be replaced/updated to the drawing. Updating the axial fan works if the user is logged in to Systemair Configurator when the axial fan will be inserted into the drawing.

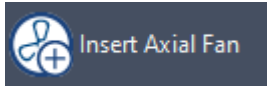


Opens a file dialog from where the user can choose a .mah file and import the axial fan into the drawing. This feature is typically used when two people are involved in the process. One person uses the Systemair Configurator web application, and the other uses the plugin in MagiCAD for AutoCAD or AutoCAD software.



Opens the technical data of the selected axial fan for viewing. When using MagiCAD, the technical data of the axial fan can also be viewed using MagiCAD features.

3.2 Insert Axial Fan



Please follow these steps for inserting axial fan from Systemair Configurator into MagiCAD for AutoCAD or AutoCAD:

1. Click *Insert Axial Fan* button from the plugin ribbon panel in AutoCAD.
2. If the MagiCAD project is opened, the plugin asks to select duct from the drawing. The plugin reads airflow, pressure drop and connection size from the selected duct. The duct data will be used to select a suitable axial fan in Systemair Configurator at a later stage. This phase can be skipped by pressing the *Esc* button.
3. Systemair Configurator web application will be started. If the user has not already logged in to the Systemair Configurator, the username and password are requested from the user.

English ▼

Login

Register

Email *

Password *

Login

[Recover password](#)

AD login is not supported on this server. Please use email and password to login.

Continue without logging in

Units for guest users are not saved. To be able to save selected unit, login as a registered user.

4. Once the user has logged in, the project page is displayed. On this page, the user can create and modify projects which contain axial fans.
5. Once an axial fan is added to a project in Systemair Configurator by clicking *Add product* button, the page will be opened where a suitable axial fan can be searched.

The duct data will be filled to this page if the duct has been selected earlier from the CAD software.

- Select >
 Configure >
 Generate report >
 Export DXF

3D
Description
Dimensions
Configuration
Quotation
Wiring
Documents

Select accessories

Guard grills

Silencers

Electrical accessories

Dampers

Horizontal Mounting Feet Set

Counter Flange

Flexible Connection

☐ Recommended accessories

- ☒ Calculate pressure losses for accessories
 - ☒ Configuration is E/P compliant
 - ☒ Configuration complete

Static pressure

AXC 500-6/11"-4-P (200) (0.55 kW) S IE3

Flow Rate Q [l/s]	Pressure P [Pa]	Note
~400	~180	Peak pressure point
~1200	~100	Operating point at 11\"/>
- Motor: 0.55 [kW]

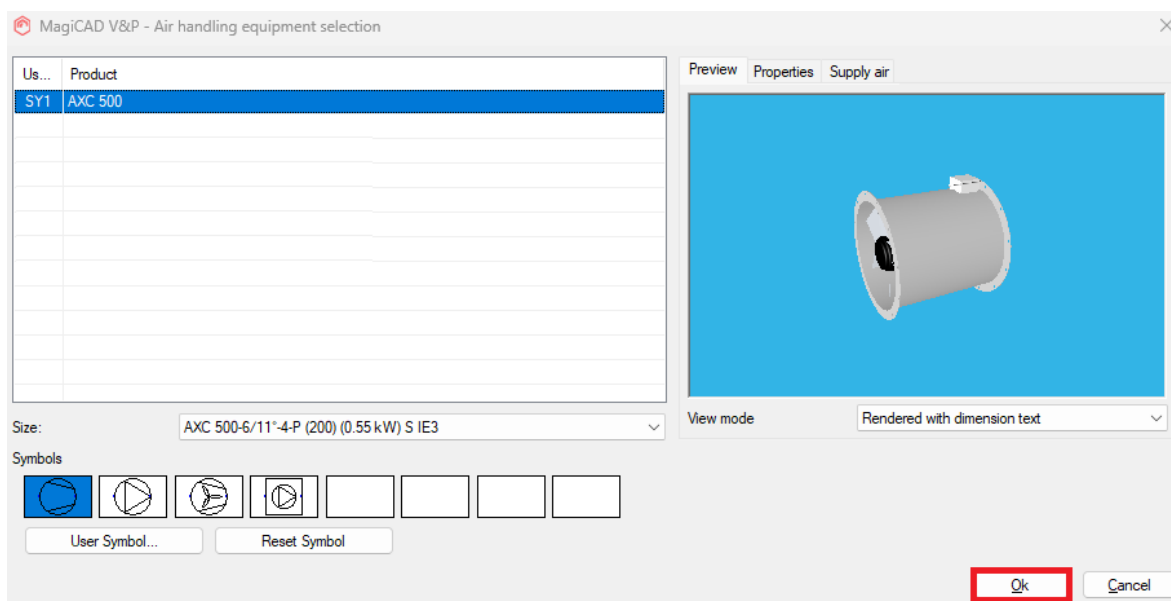
- The axial fan can be added to MagiCAD for AutoCAD or AutoCAD by clicking *Export to CAD* button from Systemair Configurator. Clicking the button, the plugin window will be closed, and the axial fan will be added to CAD software.

3.2.1 Adding Axial Fan to MagiCAD for AutoCAD

Please continue reading these instructions if the axial fan needs to be added to MagiCAD for AutoCAD.

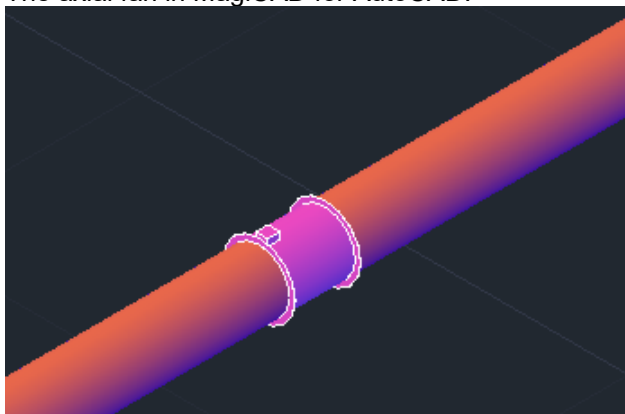
If the platform is MagiCAD for AutoCAD, the plugin opens MagiCAD dialog for entering a user code for the axial fan. Also, for example, a 2D symbol can be selected for the fan.

After the user code is specified in MagiCAD window, the product properties will be displayed to the user, and clicking the **Ok** button will add the axial fan to the drawing.

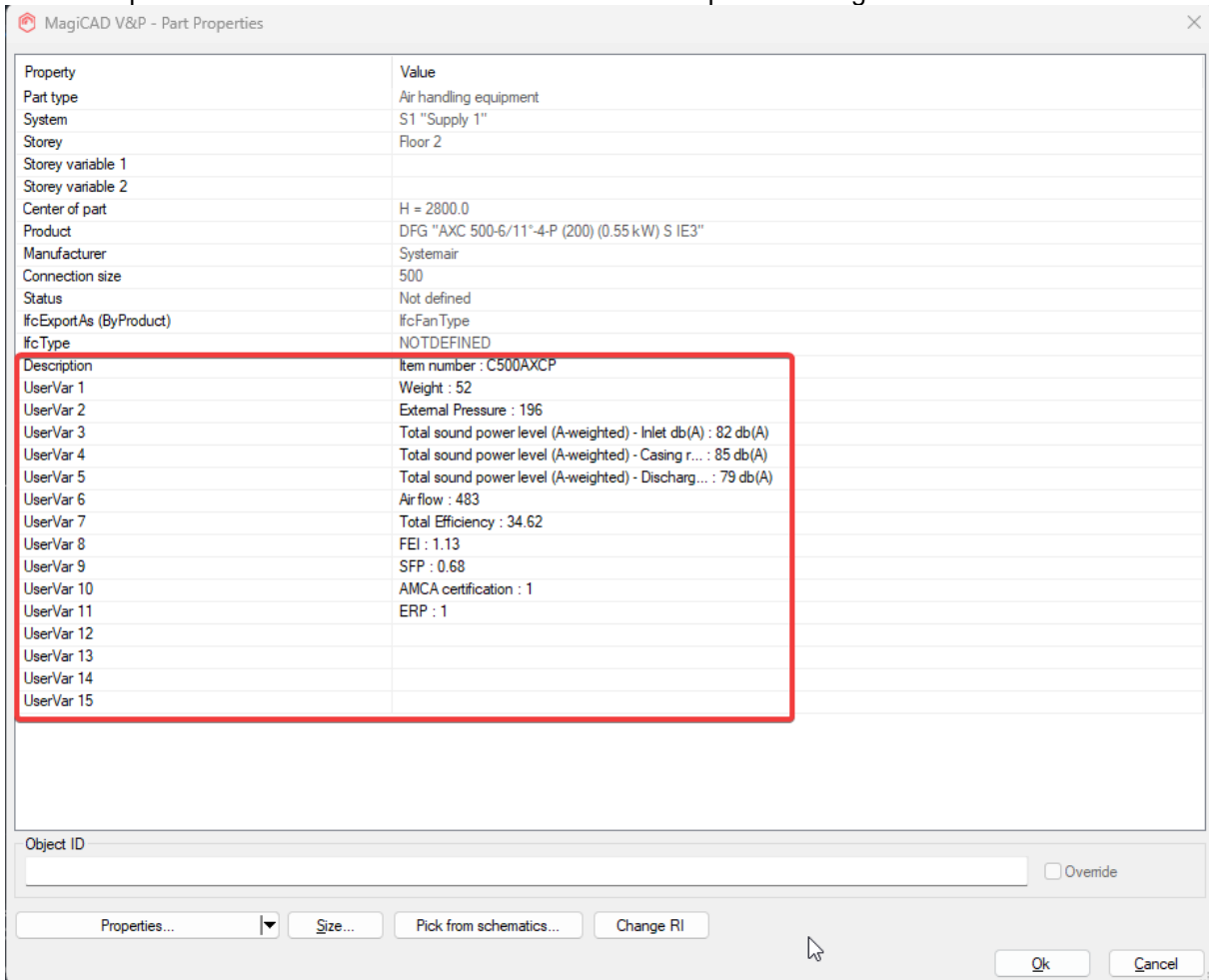


The axial fan is always added to the duct when the platform is MagiCAD for AutoCAD.

The axial fan in MagiCAD for AutoCAD:



Additional parameters of the axial fan are shown in Part Properties dialog:



Property	Value
Part type	Air handling equipment
System	S1 "Supply 1"
Storey	Floor 2
Storey variable 1	
Storey variable 2	
Center of part	H = 2800.0
Product	DFG "AXC 500-6/11"-4-P (200) (0.55 kW) S IE3"
Manufacturer	Systemair
Connection size	500
Status	Not defined
IfcExportAs (ByProduct)	IfcFanType
IfcType	NOTDEFINED
Description	Item number : C500AXCP
UserVar 1	Weight : 52
UserVar 2	External Pressure : 196
UserVar 3	Total sound power level (A-weighted) - Inlet db(A) : 82 db(A)
UserVar 4	Total sound power level (A-weighted) - Casing r... : 85 db(A)
UserVar 5	Total sound power level (A-weighted) - Discharg... : 79 db(A)
UserVar 6	Air flow : 483
UserVar 7	Total Efficiency : 34.62
UserVar 8	FEI : 1.13
UserVar 9	SFP : 0.68
UserVar 10	AMCA certification : 1
UserVar 11	ERP : 1
UserVar 12	
UserVar 13	
UserVar 14	
UserVar 15	

Object ID: ☐ Override

Properties... Size... Pick from schematics... Change RI

Ok Cancel

In additional properties, if the value is "1" it means that the property is "yes" or "selected", for example AMCA certification.

Once the axial fan has been successfully added to MagiCAD from Systemair Configurator web application via the plugin, the axial fan can be used with MagiCAD functionalities similarly than other duct fans in MagiCAD.

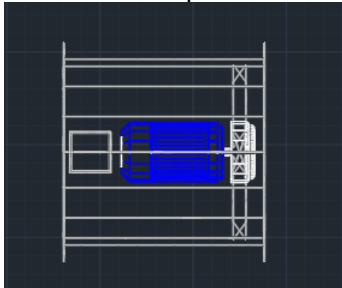
The plugin will store technical data to the axial fan instance. Please note that if the axial fan is added to the drawing later from MagiCAD project, the axial fan instance does not contain the additional parameters of the axial fan in UserVar properties and Systemair Configurator project related information cannot be stored to the instance.

3.2.2 Adding Axial Fan to AutoCAD

Please continue reading these instructions if the axial fan needs to be added to AutoCAD without MagiCAD.

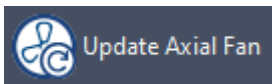
Once the axial fan has been selected from the Systemair Configurator web application, the plugin creates the axial fan instance directly to the drawing, and the user selects location for the axial fan.

The axial fan top view in AutoCAD:



The plugin will store technical data to the axial fan instance. Technical data can be viewed with the *View Axial Fan* feature.

3.3 Update Axial Fan



Please follow steps below to update Systemair axial fan into MagiCAD for AutoCAD or AutoCAD.

3.3.1 Updating Axial Fan in MagiCAD for AutoCAD

If MagiCAD is installed, use these steps to update the axial fan via the plugin:

1. The plugin asks the user to select the axial fan from the drawing.

Once the axial fan is selected, the plugin reads information from the selected axial fan and the duct where the fan is connected. The plugin reads airflow, pressure drop and connection size from the duct.

2. The data will be transferred to Systemair Configurator web application and the selected axial fan will be opened in Systemair Configurator.

If the axial fan is removed from the Systemair Configurator, the Configurator opens the page where the user can configure a new fan.

The features and accessories of the axial fan can now be modified in the Configurator.

3. Once the axial fan is configured, the fan can be added to MagiCAD for AutoCAD by clicking *Export to CAD* button from Systemair Configurator.

In this step, the plugin removes the existing axial fan instance from the drawing and the new axial fan will be inserted to MagiCAD.

The user decides a location for the axial fan in the drawing.

The plugin will store technical data to the axial fan instance. Please note that if the axial fan is added to the drawing later from MagiCAD project, the axial fan instance does not contain the additional parameters of the axial fan in UserVar properties and Systemair Configurator project related information cannot be stored to the instance.

3.3.2 Updating Axial Fan in AutoCAD

If the plugin is used in AutoCAD without MagiCAD, use these steps to update the axial fan via the plugin:

1. The plugin asks the user to select the axial fan from the drawing.

Once the axial fan is selected, the plugin reads information from the selected axial.

2. The data will be transferred to Systemair Configurator web application and the selected axial fan will be opened in Systemair Configurator.

If the axial fan is removed from the Systemair Configurator, the Configurator opens the page where the user can configure a new fan.

The features and accessories of the axial fan can now be modified in the Configurator.

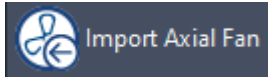
3. Once the axial fan is configured, the fan can be added to AutoCAD by clicking *Export to CAD* button from Systemair Configurator.

In this step, the plugin removes the existing axial fan instance from the drawing and the new axial fan will be inserted to AutoCAD.

The user decides the location for the axial fan in the drawing.

The plugin will store technical data to the axial fan instance. Technical data can be viewed with the *View Axial Fan* feature.

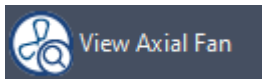
3.4 Import Axial Fan



Please follow these steps for importing axial fan from the file (*.mah) to MagiCAD for AutoCAD or AutoCAD:

1. Click the *Import Axial Fan* button from the plugin ribbon panel in AutoCAD.
2. Select the .mah file with the file dialog.
3. After clicking the *Open* button, the axial fan will be added into the MagiCAD for AutoCAD or AutoCAD. The plugin adds the axial fan to MagiCAD for AutoCAD and AutoCAD in the same way how the *Insert Axial Fan* feature.

3.5 View Axial Fan



Please follow these steps for viewing the technical data of the axial fan:

1. Click the *View Axial Fan* button from the plugin ribbon panel in AutoCAD. The plugin asks the user to select an axial fan from the drawing.
2. Once the axial fan is selected, the technical data of the axial fan will be shown in the dialog:


systemair

AXC 400-6/14°-4-P (160) (0.37 kW) S IE2 +RSA2+VIB-AXC A2

Parameter	Value
SYS External Pressure	101
SYS Total sound power level (A-weighted) - Inlet db(A)	77 db(A)
SYS Total sound power level (A-weighted) - Casing radiated db(A)	61 db(A)
SYS Total sound power level (A-weighted) - Discharged db(A)	72 db(A)
SYS Air flow	462
Total Efficiency	44.65
FEI	1.69
SFP	0.33
AMCA certification	1
ERP	1


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OK