



Lindab Fan Selection program user guide

Basic functions and advantages



November 2016



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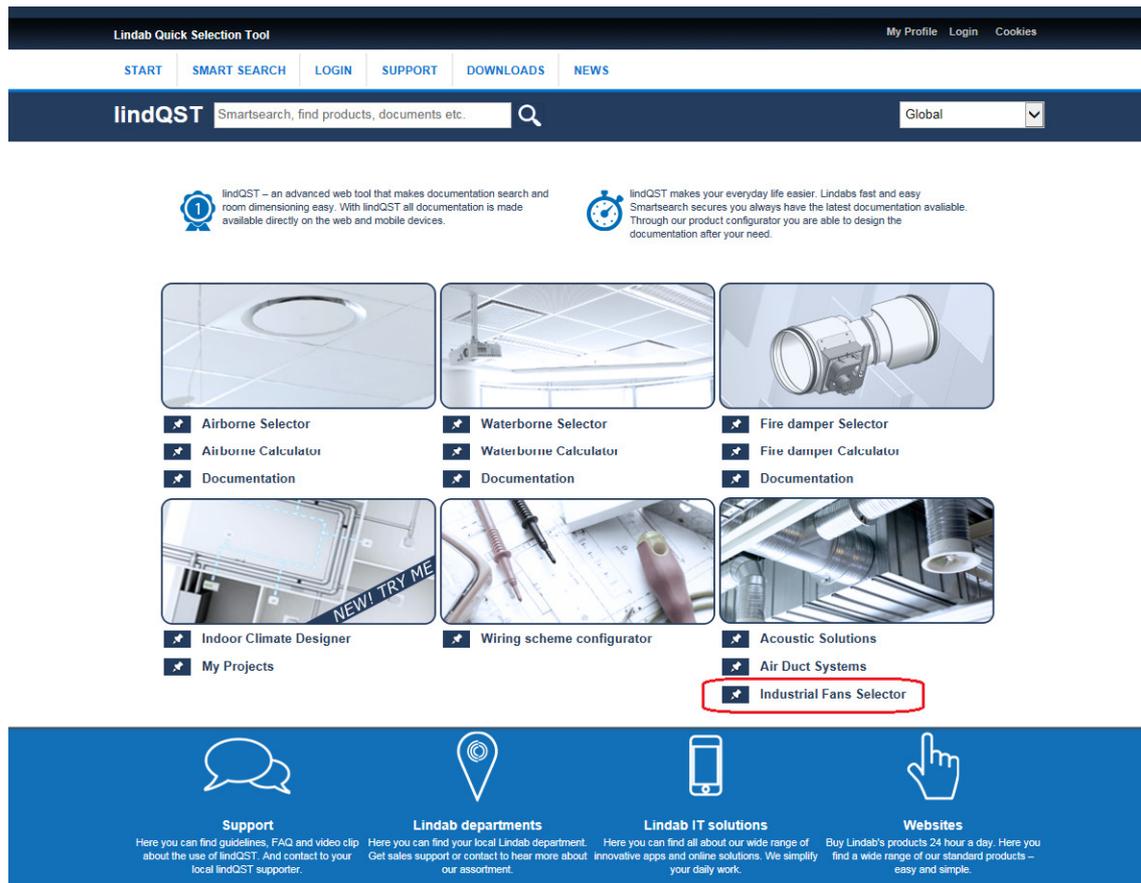
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1. ACCESS

Access is available from any device (pc, mobile and tablet) and any operating system.

Type <http://fans.lindqst.com> into a browser with internet connection or follow the link on Lindqst home page <https://www.lindqst.com/>.



2. OPTIONS

On the top right part of the program you will find the menu and the series and model browser.

In the menu you will find the series browser, the flow and pressure browser, the comparative basket, the configuration options (units and frequency), and the change of language:



<http://fans.lindqst.com/>
www.lindab.si





3. CHANGE OF LANGUAGE



When the program is started, the web browser auto detects and selects the most appropriate language. In case you want to use a different language click on the icon to select a different option.

4. CONFIGURATIONS



In this section you can choose the units with which to work by default in your selections and the data shown in the report: flow, pressure, temperature, length (distance from the sound source for the sound spectrum and height above sea level), frequency (50Hz or 60Hz) and total or static pressure. Once you have selected your options click “Save” to activate your changes.

Preferences ×

⊕

<p style="text-align: center;">Flow rate</p> <p style="text-align: center; font-size: small;">Default unit of volume used in the selection form and graphics.</p> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">l/s ▼</div>	<p style="text-align: center;">Static pressure</p> <p style="text-align: center; font-size: small;">Default unit of pressure used in the selection form and graphics.</p> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">Pa ▼</div>	<p style="text-align: center;">Temperature</p> <p style="text-align: center; font-size: small;">Default unit of temperature to be displayed.</p> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">°C ▼</div>
<p style="text-align: center;">Length/Height</p> <p style="text-align: center; font-size: small;">Measure unit for distance and height to a noise source over the sea level.</p> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">m ▼</div>	<p style="text-align: center;">Security coefficient</p> <p style="text-align: center; font-size: small;">Value expressed in% to calculate belt drive fans power, applying this security factor.</p> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">15</div>	<p style="text-align: center;">Frequency</p> <p style="text-align: center; font-size: small;">Motor working frequency</p> <p style="text-align: center;"><input checked="" type="radio"/> 50 Hz <input type="radio"/> 60 Hz</p>

CancelSave changes



5. SELECTION BY SEARCH



When typing the name of a fan in the series search box (e.g. LCA), results will show the series containing this fan so that the user can choose the desired model -in case different models are available. Searches can also be made by product code. The symbol % can be used to replace characters in the search.

Click on the icon to display a model.

Series	Model
LCA FIRE CERTIFIED F400 FANS INSIDE THE HAZARDOUS AREA	
LCAP AXIAL FANS	
LCAE AXIAL FANS	
LCAE R AXIAL FANS	
LCAX ATEX FANS	
Fan	
LCA FIRE 56 T4 0,75kW (A5:6) F400 REF: 20100050__AF	
LCA FIRE 56 T4 1,1kW (A5:6) F400 REF: 20100050__AF	
LCA FIRE 56 T4 1,5kW (A5:6) F400 REF: 20101050__AF	
LCA FIRE 56 T6 0,75kW (A5:6) F400 REF: 20100050__AF	
LCA FIRE 63 T4 0,75kW (A5:6) F400 REF: 20100050__AF	

Up to 6 models containing the key word typed in the search box are shown in this section.

6. SELECTION BY SERIES



This browser will filter results by families and series. You can choose either one or more series.

First choose the fan family (e.g. axial fans) and then select the desired series in case you wish to refine the search results or you already know the product name. Then click “Search”.



Selection by series

Fan family

- All
- ROOF FANS
- INLINE FANS
- CERTIFIED F400 FANS INSIDE THE HAZARDOURS AREA
- CERTIFIED F400 FANS OUTSIDE THE HAZARDOURS AREA
- AXIAL FANS
- LOW CONSUMPTION
- LOW PRESSURE CENTRIFUGAL FANS

Fan series

- All
- WMAP
- SCAP
- LCAE
- LCAE R
- MCAP
- AAF
- LWAP
- LWAPH

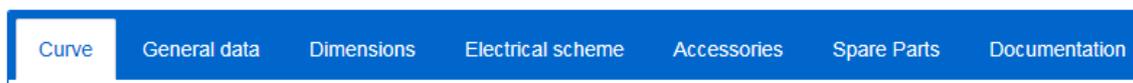
✖ Reset 🔍 Search

The selected model or series will then be displayed. If you have selected a complete series, results of all the sizes available will be shown. You can display any of the listed models by clicking on the right icon , or create a comparative chart by adding them to the comparative basket .

Name	Power (kW)
LCAE 35 T2 0,55kW	0,55
LCAE 35 T4 0,12kW	0,12
LCAE 45 T4 0,37kW	0,37
LCAE 56 T4 0,55kW	0,55
LCAE 56 T4 0,75kW	0,75
LCAE 56 T4 1,1kW	1,1

When a specific model is displayed, Fan selection program will provide a wide range of information.

The top tabs will allow you to see:





6.0 The **curve** graphic is first displayed by default and provides a wide range of information



- **Static Pressure (P_s)**: pressure applied by a fluid with independence of its speed (thus static). In ventilation systems it refers to the pressure applied by the air when contained in any volume, as it does the air trapped in a balloon.
- **Dynamic Pressure (P_d)**: pressure applied by a fluid as a consequence of its speed (thus dynamic). In ventilation systems it refers to the pressure applied by the air flow when moving, as it does the wind when blowing.
- **Total Pressure (P_t)**: it is the sum of the Static Pressure and the Dynamic Pressure. In ventilation systems it refers to the air circulating in a duct.
- **Power consumption (P_{abs})**: electric power needed to move the air, i.e. to achieve a specific flow and pressure. Power supplied by the electrical network which may be higher to that required by the motor due to its losses.
- **Performance (ρ)**: relation between the energy supplied to the fluid and the energy of the external source. In ventilation systems it refers to the part of the electrical power used to move the air (considering the fan consumes part of the electrical power). Not all fans display their performance curve.
- **Resistive curve**: curve relating losses caused by the installation depending on the air flow circulating in it.



Click on any of the elements of the legend to make them visible or invisible in the graphic.

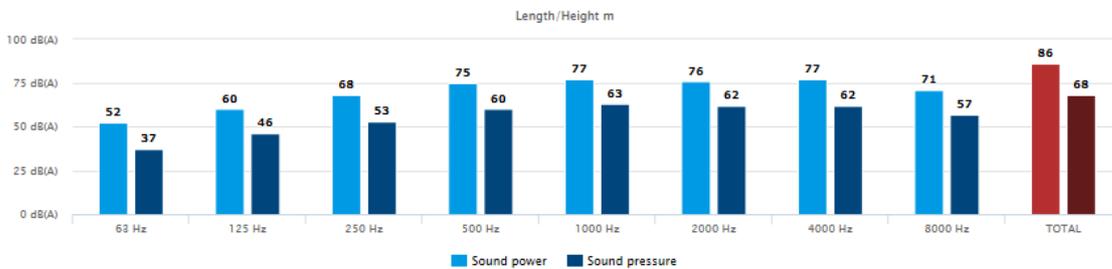
By clicking on any point of the graphic or introducing the flow and pressure values in the right column (“design point”), the resistive curve is automatically redrawn.

Values of the sound power and the sound pressure are shown. If the value of the sound power distance (distance to the fan) is changed -then click “Send”- the sound pressure graphic will automatically be updated accordingly.

Acoustic Data

SWL dB(A)	<input type="text" value="86"/>
SPL dB(A)	<input type="text" value="68"/>
Sound spectrum	<input type="text" value="Inlet"/>
Length/Height (m)	<input type="text" value="1.5"/>
<input type="button" value="Send"/>	

This distance is, by default, 1,5m.



6.2 **Dimensions** are displayed individually for each fan model selected. The dimensions table and the diagram are also displayed.

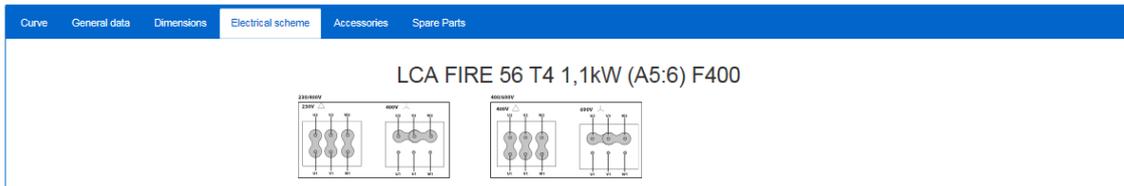
Curve General data **Dimensions** Electrical scheme Accessories Spare Parts

LCA FIRE 56 T4 1,1kW (A5:6) F400

E	O	ØA	ØB	ØDint	ØJ
560	12x30°	646	620	559	12



6.3 The **electrical scheme** is also individual for each fan model and is only available for those motorized.



6.4 The **general data** tab shows the product description, code, photograph, complete technical data and ErP data. To see the ErP data, activate the working point.

The code number is often indicated with hyphens (_ _ _) which will be complemented once the working point has been selected, together with the corresponding inclination degree or the turns, whichever is the case.

LCA FIRE 56 T4 1,1kW (A5:6) F400

LONG CASSED AXIAL FAN 400/2GH

MANUFACTURING FEATURES:

- Long cased axial fan with reinforced body.
- Modular motor-impeller assembly. Cast aluminum impeller with variable pitch angle. Epoxy powder finishing coat.
- Housing with motor access door for easy connection.
- Standard asynchronous squirrel-cage motor with IP-55 protection and Class II insulation certified 400/2GH. Manufactured with standard voltages: 230/400V 50Hz in three phase motors up to 3kW and 400/690V 50Hz for higher powers.

APPLICATIONS:

Designed for inline installation, they are suitable for:

- Smoke emergency exhaust with motor inside the hazardous area.
- Maximum working temperature: 50°C.

UNDER REQUEST:

- Supply impeller (in direction from impeller to motor).
- 100% fire-rated impeller.

Official homologation by the European Secretary APPLU8 according to EN 12101-3:2002, EN 12101-0:2002/AC:2009
Certification No: 2210-CPR-09/2

Fan

Height	77.00 Kg	Flow	1180.00 m³/h
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Motor

Power	1,1 kW	rpm Motor	1392	I max. 400 V	2,7 A	size	90	weight	14 Kg	efficiency	91,4 %
IP	55										

ERP

Fan type	Fan speed	
	A	Outlet and inlet free discharge
Installation category	A	
Efficiency category	Static	
VLF	No	
Motor power	1,1	
	Values	Requirements
Max. efficiency	91,4	2012
Efficiency grade (%)	4,199	2012
Absorbed power	1,106	2012
Flow m³/h	1264,11	2012
Static pressure (Pa)	178,27	2012
Speed (rpm)	1392	2012
Specific rate	1,00	2012



6.5 The **accessories** shown are specific to the selected fan. Each accessory code is indicated together with its description.

Curve General data Dimensions Electrical scheme **Accessories** Spare Parts Documentation

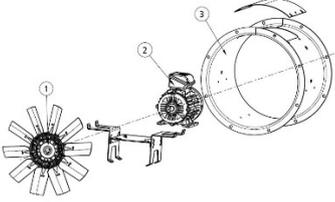
LCAP 56 M6 0,25kW (A2:6)

					
Model ISOSW 6,5 1V	Model PG 56	Model MFLCA 56	Model CCF 560	Model FLEX FIRE 56	Model PSLCAP 56
Information ISOSW Safety start-stop switch. Useful for stopping the fan before any maintenance job. Suited for direct control of motor in AC 3 operation category According to the IEC 947-3 standard. IP-65 protection.	Information PG Protection guard at the side of impeller and motor in long casing models. Protection guard only in impeller side in short casing models. Specially designed to avoid entrance of objects and in contact with impeller. Manufactured of welded metal wire. According to ROHS 2002/95/EC (restriction of use in certain hazardous substances on electrical and electronic equipments)	Information MFLCA Manufactured in steel and protected against corrosion with epoxy resin powder	Information CCF Connexion flange to be fitted in the long cast axial fans inlet and outlet. For centrifugal models only extraction and for Axial models extraction and impulsion.	Information FLEX FIRE Flexible flange used to be avoid vibrations in the installation. Certified according to the European standard EN 12101-3 400°C/2H.	Information PSLCAP Manufactured in galvanised and protected against corrosion with epoxy resin powder
					
Model PC2 60	Model FCCF 14				
Information PC2 Overpressure damper for facade. Maintains pressure or depression within a room from the outside or other adjacent room. Use in air conditioning, ventilation and heating.	Information FCCF Circular-Circular coupling flange trough anti-vibration canvas.				

6.6 The **spare parts** available for each fan model are shown in the diagram.

Curve General data Dimensions Electrical scheme Accessories **Spare Parts**

LCA FIRE 56 T4 1,1kW (A5:6) F400



N°	Family	Name	Qty	RPM	Angle
	IMPELLER	560-AF5:6 G35 D24	x1	-	35
	IMPELLER	560-AF5:6 G37,5 D24	x1	-	38
	MOTOR	1,1KW T4 B3 400G	x1	-	-



6.7 In the **documentation** section the generic user manual, Approval and CE declaration of conformity (Erp included), specific for each model, are available in pdf format.



7. SELECTION BY FLOW-PRESSURE RATE



Instead of making a fan selection by choosing the fan model or the fan series, you can make a search by indicating the desired working

point (flow and static pressure). Once you have introduced the values click “Search” on the bottom left side of the screen.

If desired, other sections of the search form can be completed

-environmental data, fan family, fan series, motor or turbine characteristics and flow rate tolerance. These data filters will present more specific results and therefore less options.

To make these options visible display them by clicking on the headline of each section.



Tolerance in the results can be set up by selecting the “customize” option in the “flow rate tolerance” section:

The image shows three screenshots of the software interface for setting flow rate tolerance. The first screenshot shows the 'Flow rate tolerance' dropdown menu with 'Personalizar' selected. The second screenshot shows the 'Selection by flow rate' section with 'Enable flow selection' checked, and sliders for 'Tol. Sup. Q' at 10% and 'Tol. Inf. Q' at 2%. The third screenshot shows the 'Selection by pressure rate' section with 'Enable pressure selection' unchecked, and sliders for 'Tol. Sup. P' at 3% and 'Tol. Inf. P' at 0%.

These forms allow you to change the tolerance in the results: above or below the flow rate and/ or the pressure rate indicated, being it a percentage or an absolute value. You can choose if selection will be by flow rate or by pressure rate selecting with a tick. When typing airflow or/and pressure values, the pressure field needs to be filled.

Once you click “Send” a table showing all the results will be displayed. Code, name, flow, pressure, performance, RPM, power and efficiency for each fan are detailed.

Code	Name	Flow (l/s)	Pressure (Pa)	RPM	Power (kW)	Efficiency	Efficiency type
279450106A	CRFA 450 T4 1,1KW	800.17	522.67	-	1,1	44.91 %	-
279500106A	CRFA 500 T4 1,5KW	872.2	621.01	-	1,5	39 %	-
279630106A	CRFA 630 T6 1,5KW	711.69	413.47	-	1,5	31.15 %	-
279710106A	CRFA 710 T6 2,2KW	814.71	541.84	-	2,2	29.13 %	-
279800106A	CRFA 800 T6 4KW	909.34	675.02	-	4	26.36 %	-
279450106	CRFP 450 T4 1,1KW	800.17	522.67	-	1,1	44.91 %	-
279500106	CRFP 500 T4 1,5KW	872.2	621.01	-	1,5	39 %	-

Same as in the Selection by Series, you can click on a specific model or add it to the comparative chart.

8. COMPARATIVE CHART



The comparative chart can compare different models from a same series or models from different series. Other fans can be added to the comparative chart by clicking on the icon

As many fans as the user has selected will show up in this basket, which will indicate the number of elements to compare

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In this case 3 fans have been selected and will be compared. When clicking on this icon -located on the top right side of the screen- a dialogue box will open and will allow the user to see the selected elements, delete all or some of them, or access the comparative chart.

Comparative ✕

You have selected the following models to compare:

- CRFA 630 T6 1,5KW ✕
- CRFP 630 T6 1,5KW ✕
- CRFP 450 T4 1,1KW ✕

When clicking “Compare” a new page with two graphics will open up. These graphics compare the flow-static pressure curves and the flow-power consumption curves separately.

Up to 10 different models can be compared at the same time.

This option allows the customer to compare his/ her need with what's available in our catalogue.

Comparative samples between three models of the same series:





Any of these curves can be made invisible by clicking on the model in the legend -the graphic will then be resized for a better display.

9. TECHNICAL REPORT



This icon is only visible when a model is displayed. Clicking on it will automatically download a pdf file containing all the technical information of the selected product -whether we have selected a working point or not. However, if the working point has not been indicated, data related to the acoustic spectrum and the Erp will not be shown.



Click on this icon to include the desired elements in the report. All the active options -except for the cost price- will be included by default in the report. In this section the user can select or unselect those categories to be displayed in the pdf technical report. Click “Save” after your selection to save the changes.

PDF Configuration ✕

- General data
- Performance curve
- Technical data
- Acoustic data
- Dimensions
- Wiring diagram
- Accessories
- Spare parts
- Cost price
- Logo

The pdf technical report can be issued with the selected working point.

If you wish to send the information to a customer you do not need to download the pdf technical report file. It is enough to send your customer the link of the desired webpage, which will maintain the selected working point as well as the other selected data (temperature, height above sea level, flow and pressure).