



**SIEMENS**

*Ingenuity for life*



**SIMARIS Planning Tools**

Easy, fast, and safe planning  
of electric power distribution

[siemens.com/simaris](https://www.siemens.com/simaris)

# SIMARIS planning tools – for efficient planning support

Planning electric power distribution for industrial plants, infrastructure, and buildings is becoming more and more complex. Our innovative SIMARIS planning tools effectively support your planning process to enable you as electrical planner to work even more efficiently under the given conditions. The SIMARIS Suite provides you with the latest information, all tools can be accessed easily and quickly, and you can find all support documents and videos at a glance.

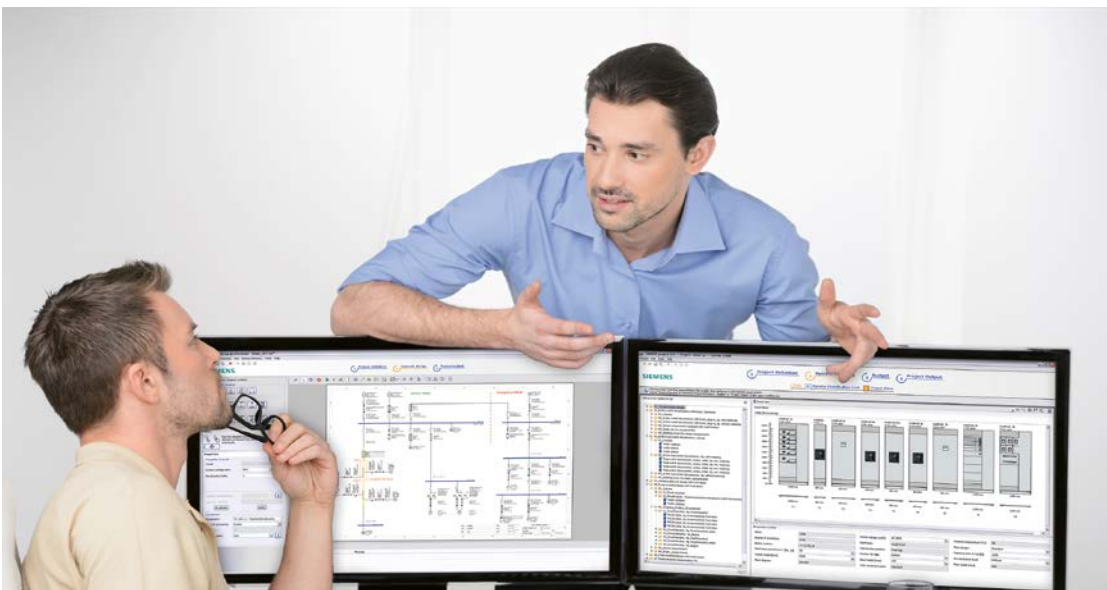
SIMARIS planning tools provide support in dimensioning the electric power distribution system and determining the equipment and distribution boards required:

- SIMARIS project for determining the space requirements of distribution boards and the budget, and for creating tender specifications and standardized BIM export
- SIMARIS design for network calculation and dimensioning including selection of all protection devices in radial, meshed, and ring networks

## Benefits:

- Intuitive, easy handling and documentation of planning results
  - Integrated planning from the medium-voltage level down to the consumer
  - Automatic selection of matching components and distribution systems
  - High level of planning security plus flexibility in the planning and implementation process
- 
- SIMARIS curves for visualizing characteristic tripping curves as well as let-through current and let-through energy curves
  - SIMARIS Online Toolbox offers quick access to practical calculation tools

**More information:**  
[siemens.com/simaris](https://www.siemens.com/simaris)



# SIMARIS project – determining space requirements and creating tender specifications



SIMARIS project helps you obtain a quick overview of the space requirements for the electric power distribution system inside the building – from the medium-voltage level down

to the distribution boards. Thus you can determine the budget quickly and have a tender specification created automatically. Thanks to the export of BIM (Building Information Modeling) files, a smooth data exchange is possible. Fully planned systems can be exported from SIMARIS project. Via the SIMARIS BIM plug-in they can be used in Autodesk Revit® with all 3D and technical data.

**More information:**

[siemens.com/simarisproject](https://www.siemens.com/simarisproject)

## Benefits of SIMARIS project:

- Export of BIM (Building Information Modeling) files in IFC format enables smooth data exchange\*\*
- Quick overview of space requirements and budget\*
- Easy adaptation to changes in use and system expansions
- Planned systems can be saved in the favorites library to be available for similar projects
- User-friendly output options for documentation purposes

## SIMARIS project

<b>Products and systems</b>	Medium-voltage switchgear, transformers, low-voltage switchboards, busbar trunking systems, distribution boards, frequency converters, charging units for electric vehicles
<b>Functions</b>	<ul style="list-style-type: none"> <li>• Views and dimensions of switchgear, switchboards, distribution boards, and transformers</li> <li>• Easy budget calculation*</li> <li>• Automatic selection of suitable switchgear, switchboards, distribution boards, and transformers using the interface with SIMARIS design via import file</li> <li>• Automatic placement of devices in the distribution boards</li> <li>• Creation of tender specifications, also in international format</li> <li>• Consideration of functional endurance of busbar trunking systems</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>• Import of project data created with SIMARIS design for further processing</li> <li>• Export of low-voltage switchboard data for use in SIMARIS configuration (tool for configuration and calculation of Siemens power distribution boards and distribution boards)</li> <li>• Export of IFC files for smooth data exchange within the scope of BIM (Building Information Modeling)**</li> </ul>
<b>Documentation</b>	<ul style="list-style-type: none"> <li>• Different views of switchgear, switchboards, distribution boards, and transformers</li> <li>• Single-line diagrams (optionally with technical data table)</li> <li>• Budget price list*</li> <li>• Tender specification texts (GAEB XML; RTF)</li> </ul>
<b>Regionalization</b>	Technology packages for 14 countries in 10 languages

\* For budget price calculation, please contact your SIMARIS expert in the region: [siemens.com/simaris/contact](https://www.siemens.com/simaris/contact)

\*\* For overall import of data into Autodesk Revit®, please use the SIMARIS BIM plug-in, available at [www.siemens.com/simarisproject/bim](https://www.siemens.com/simarisproject/bim)

# SIMARIS design – dimensioning of reliable solutions



SIMARIS design supports network calculation and dimensioning including selection of all protection devices in radial, meshed, and ring networks.

The software provides excellent options for graphical editing of network diagrams. For the straight way to project implementation, there are comfortable options for documenting the results of the entire network dimensioning process – for example, a component list of the necessary equipment or the network diagram in your desired format (PDF, DXF, DWG).

In addition, you can export project data and continue the planning of specific installations using SIMARIS project. A list of all settings determined during the dimensioning of protection devices can be exported, too. This way, the settings can be transferred to the devices when the equipment is installed.

**More information:**  
[siemens.com/simarisdg](https://www.siemens.com/simarisdg)

## **Benefits of SIMARIS design:**

- Dimensioning on the basis of real products in radial, meshed, and ring networks
- Integrated planning from the medium-voltage level down to the consumer
- Automatic selection of matching components
- Established technical rules and standards taken into account (IEC, VDE)
- Detailed knowledge of products and systems not needed
- High level of planning security

# SIMARIS design – calculating networks and short-circuit currents

	SIMARIS design	With a license for SIMARIS design professional
<b>Products and systems</b>	Medium-voltage protection devices, transformers, low-voltage protection and switching devices, busbar trunking systems and cable systems, frequency converters, charging units for electric vehicles, motors, generators, renewable energy sources	
<b>Functions</b>	<p>Dimensioning of electric networks from the medium-voltage level down to the low-voltage consumer level:</p> <ul style="list-style-type: none"> <li>• Consideration of required personal, short-circuit, and overload protection</li> <li>• Free definition of the modes of operation of the networks and of the switching states</li> <li>• Consideration of functional endurance as well as lightning and overvoltage protection possible</li> <li>• Configuration of busbar trunking systems for power transmission and distribution possible</li> <li>• Automatic selection of suitable equipment in radial networks</li> <li>• Calculation of short-circuit currents, symmetrical load flows, voltage drops, and energy balances in radial networks</li> <li>• Isolated networks can be planned and displayed</li> <li>• Outputs for analysis and optimization of the energy efficiency of the planned network</li> </ul>	<p>In addition:</p> <ul style="list-style-type: none"> <li>• Parallel network operation</li> <li>• Automatic selectivity evaluation</li> <li>• Configuration of a switch-over facility for emergency power supply is possible in sub-distributions</li> <li>• Infeed on all distribution levels (e.g. transformer, generator, etc.)</li> <li>• Automatic selection of suitable equipment in ring and meshed networks</li> <li>• Calculation of short-circuit currents, asymmetrical load flows, voltage drops, and energy balances in ring and meshed networks</li> </ul> <p>Further benefits:</p> <ul style="list-style-type: none"> <li>• Multi-user license</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>• Export of created project for further processing in SIMARIS project</li> <li>• Export for use in the Siemens installation and service tool Powerconfig</li> </ul>	
<b>Documentation</b>	<ul style="list-style-type: none"> <li>• Component list for the selected equipment</li> <li>• Network diagram in output formats PDF, DXF, or DWG</li> <li>• List of protection device settings and short-circuit currents determined during dimensioning</li> </ul>	<p>In addition:</p> <ul style="list-style-type: none"> <li>• Selectivity evaluation</li> </ul>
<b>Regionalization</b>	Technology packages available for around 100 countries in 20 languages	

# SIMARIS curves – visualizing time-current characteristic curves



With SIMARIS curves you can evaluate characteristic tripping curves of low-voltage protection devices and fuses (IEC) easily and quickly without having to plan a complete network.

Use SIMARIS curves to select the desired devices by directly entering their order numbers, or use the options of the user-friendly selection aid to specify the devices according to the requested technical attributes. The device settings can be adapted directly on the screen, either numerically or via the sliders. Thus, the impact on the selectivity behavior is visible immediately. The selection aid also allows you to save individual products with the attributes you have defined as favorites, and retrieve them at a later date with a single mouse click.

## Comprehensive visualization

Besides the depiction of the characteristic tripping curves and tolerance bands, as well as the option to set parameters, let-through current and let-through energy characteristics

are also offered for the devices. A clear printout documents the characteristic curves you have selected and their corresponding settings.

Or you can use the app version of SIMARIS curves on your tablet PC or smartphone, which enables you at any time to access the settings to be made – also on site, when the equipment is installed.

## More information:

[siemens.com/simariscurves](https://www.siemens.com/simariscurves)

### Benefits of SIMARIS curves:

- Clear product selection via order number or selection aid
- Saving selected devices as favorites
- Saving several characteristic curves plus settings as overall project
- Mobile use possible as an app

## SIMARIS curves

<b>Products</b>	Medium-voltage and low-voltage protection devices
<b>Functions</b>	<ul style="list-style-type: none"><li>• Visualizing and evaluating the characteristic curves of protection devices</li><li>• Easy adaptation/check of device settings</li></ul>
<b>Documentation</b>	<ul style="list-style-type: none"><li>• Characteristic curves and settings (PDF)</li></ul>
<b>Regionalization</b>	<ul style="list-style-type: none"><li>• Data packages available for around 100 countries in 20 languages</li></ul>
<b>Availability</b>	<ul style="list-style-type: none"><li>• Also available as an app (Android and iOS) in the respective app stores</li></ul>

# SIMARIS Suite & SIMARIS Online Toolbox



**SIMARIS Suite** is the platform for your uniform access to all SIMARIS planning tools, including the SIMARIS Online Toolbox. After one-time registration, you can take advantage of all benefits. You can find our SIMARIS planning tools at a glance and receive up-to-date information, e.g. on regional trainings, as well as useful support documents and videos.

Download the free SIMARIS Suite quickly and easily.

**More information:**  
[siemens.com/simaris](https://www.siemens.com/simaris)

The SIMARIS planning tools are a part of **Totally Integrated Power**. This way, you benefit from many additional services which simplify your work as an electrical planner in the different planning phases: numerous technical documents such as **planning/application manuals and technical publications**, which provide the latest know-how, **online tender specification texts, and BIM data**. Additionally, you have access to **training opportunities** for planning power distribution systems.

**More information:**  
[siemens.com/tip-cs](https://www.siemens.com/tip-cs)



The **SIMARIS Online Toolbox** contains different practical auxiliary tools for daily use, such as: SITRATO for pressure calculations in case of an internal arc in the transformer room.

The SIMARIS Online Toolbox is an addition to the SIMARIS planning tools and is continually expanded.

**More information:**  
[siemens.com/simaristoolbox](https://www.siemens.com/simaristoolbox)



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## **SIMARIS support:**

- Download the SIMARIS Suite at [siemens.com/simaris/download](https://www.siemens.com/simaris/download)
- Customer Support Center:  
Telephone: **+49 70 00 7 46 27 47**  
E-mail: [technical-assistance@siemens.com](mailto:technical-assistance@siemens.com)
- SIMARIS experts in more than 50 countries:  
[siemens.com/simaris/contact](https://www.siemens.com/simaris/contact)
- Support documents:  
[siemens.com/simaris/help](https://www.siemens.com/simaris/help)
- FAQ: [siemens.com/simaris/faq](https://www.siemens.com/simaris/faq)
- Model networks for SIMARIS design:  
[siemens.com/simarisdesign/modelnetworks](https://www.siemens.com/simarisdesign/modelnetworks)
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