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
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

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

<table>
<thead>
<tr>
<th>SIMARIS project</th>
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</thead>
<tbody>
<tr>
<td><strong>Products and systems</strong></td>
</tr>
</tbody>
</table>
| **Functions** | • Views and dimensions of switchgear, switchboards, distribution boards, and transformers  
• Easy budget calculation*  
• Automatic selection of suitable switchgear, switchboards, distribution boards, and transformers using the interface with SIMARIS design via import file  
• Automatic placement of devices in the distribution boards  
• Creation of tender specifications, also in international format  
• Consideration of functional endurance of busbar trunking systems |
| **Interfaces** | • Import of project data created with SIMARIS design for further processing  
• Export of low-voltage switchboard data for use in SIMARIS configuration (tool for configuration and calculation of Siemens power distribution boards and distribution boards)  
• Export of IFC files for smooth data exchange within the scope of BIM (Building Information Modeling)** |
| **Documentation** | • Different views of switchgear, switchboards, distribution boards, and transformers  
• Single-line diagrams (optionally with technical data table)  
• Budget price list*  
• Tender specification texts (GAEB XML; RTF) |
| **Regionalization** | Technology packages for 14 countries in 10 languages |

* For budget price calculation, please contact your SIMARIS expert in the region: 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
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 protec-
tion devices can be exported, too. This way, the
settings can be transferred to the devices when
the equipment is installed.

More information:
siemens.com/simarisdesign

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

<table>
<thead>
<tr>
<th>Products and systems</th>
<th>SIMARIS design</th>
<th>With a license for SIMARIS design professional</th>
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<tr>
<td></td>
<td>Medium-voltage protection devices, transformers, low-voltage protection and</td>
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<tr>
<td></td>
<td>switching devices, busbar trunking systems and cable systems, frequency</td>
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<tr>
<td></td>
<td>converters, charging units for electric vehicles, motors, generators,</td>
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<td></td>
<td>renewable energy sources</td>
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<tr>
<td>Functions</td>
<td>Dimensioning of electric networks from the medium-voltage level down to the</td>
<td>In addition:</td>
</tr>
<tr>
<td></td>
<td>low-voltage consumer level:</td>
<td>• Parallel network operation</td>
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<tr>
<td></td>
<td>• Consideration of required personal, short-circuit, and overload protection</td>
<td>• Automatic selectivity evaluation</td>
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<td></td>
<td>• Free definition of the modes of operation of the networks and of the</td>
<td>• Configuration of a switch-over facility</td>
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<td></td>
<td>switching states</td>
<td>for emergency power supply is possible in</td>
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<tr>
<td></td>
<td>• Consideration of functional endurance as well as lightning and overvoltage</td>
<td>sub-distributions</td>
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<td></td>
<td>protection possible</td>
<td>• Infeed on all distribution levels</td>
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<tr>
<td></td>
<td>• Configuration of busbar trunking systems for power transmission and</td>
<td>(e.g. transformer, generator, etc.)</td>
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<td></td>
<td>distribution possible</td>
<td>• Automatic selection of suitable equipment</td>
</tr>
<tr>
<td></td>
<td>• Automatic selection of suitable equipment in radial networks</td>
<td>in ring and meshed networks</td>
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<td></td>
<td>• Calculation of short-circuit currents, symmetrical load flows, voltage</td>
<td>• Calculation of short-circuit currents,</td>
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<td>drops, and energy balances in radial networks</td>
<td>asymmetrical load flows, voltage drops, and</td>
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<td></td>
<td>• Isolated networks can be planned and displayed</td>
<td>energy balances in ring and meshed networks</td>
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<td>• Outputs for analysis and optimization of the energy efficiency of the</td>
<td>Further benefits:</td>
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<td></td>
<td>planned network</td>
<td>• Multi-user license</td>
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<td>Interfaces</td>
<td>• Export of created project for further processing in SIMARIS project</td>
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<tr>
<td></td>
<td>• Export for use in the Siemens installation and service tool Powerconfig</td>
<td></td>
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<tr>
<td>Documentation</td>
<td>• Component list for the selected equipment</td>
<td>In addition:</td>
</tr>
<tr>
<td></td>
<td>• Network diagram in output formats PDF, DXF, or DWG</td>
<td>• Selectivity evaluation</td>
</tr>
<tr>
<td></td>
<td>• List of protection device settings and short-circuit currents determined</td>
<td></td>
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<tr>
<td></td>
<td>during dimensioning</td>
<td></td>
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<tr>
<td>Regionalization</td>
<td>Technology packages available for around 100 countries in 20 languages</td>
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</tbody>
</table>
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

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

<table>
<thead>
<tr>
<th>Products</th>
<th>Medium-voltage and low-voltage protection devices</th>
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</thead>
<tbody>
<tr>
<td>Functions</td>
<td>• Visualizing and evaluating the characteristic curves of protection devices</td>
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<td>• Easy adaptation/check of device settings</td>
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<td>Documentation</td>
<td>• Characteristic curves and settings (PDF)</td>
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<td>Regionalization</td>
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<tr>
<td>Availability</td>
<td>• Also available as an app (Android and iOS) in the respective app stores</td>
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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

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

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
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