

eDesign for Small Buildings Panels

User Guide

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Purpose of the Application

This application aims to help professional electricians to design electrical distribution panels for small buildings up to 630 A rated current.

Description of the Application

- The application is divided into seven steps.
- Navigation within the steps is possible using the tabs at the top of each page.
- Other functions are accessible on each page of the application:
 - Register
 - Log in and log out
 - For logged in users: save a project in the cloud; this is implemented automatically every 2 minutes, when changing step in the application and manually with an action on the corresponding icon.
 - Save a project on the computer
 - Take notes about the project in free text
 - My profile, for logged in users only: upload discount rates per product family to get the list of material in net prices; upload company data to get it displayed in the project report. Company data (address, mail, logo, tel ..) can be registered to make them appear on the header page of the exported documents (project report and single line diagram).
 - Help: access to video tutorials; to get in touch with Schneider Electric Customer Support Services
 - FAQs
 - Terms and conditions
 - Data privacy
 - About

Step by Step Description of the Application

Home Page

- Functions accessible to all users:
 - Create a project.
 - Upload a project from the computer.
- Functions accessible to logged in users only:
 - Display the list of projects created with the user account.
 - Open, duplicate or cancel a project.
 - Search a project with free text based on the project name, location, and contact name.
 - Sort projects by project name, date of creation, date of modification, and contact name.
 - Create and manage favorite product or group of favorites.
 - Share a project through a link or via a pre-filled and editable mail.

Project Information View

This page allows you to create the project and to manage the project description:

- Compulsory data for each project: name of project.
- Optional project data: list of contacts for the project with several information to enter for each contact.
- These data are displayed on the first page of the project report which can be accessed from **Documents** page.

Switchboards View

The list view is dedicated to the creation of the switchboard(s) of the project, the graphic view is dedicated to the connection between the different switchboards (including already existing switchboards in the installation if necessary).

- Compulsory data for each panel:
 - Name of the panel.
 - Position of the panel in the installation: main panel or sub panel.
 - Number of phases at the incoming of the panel.
- Optional panel data:
 - Short circuit current value at the incoming of the panel.
 - Incoming current value in the panel.

Click the **Create** button of a panel in the list to open the **Diagram** page of the panel.

Diagram

This page allows you to create the electrical diagram of the panel.

Electrical Diagram Structure and Principle of Use

The main incomer role card of the electrical diagram is already in place.

The main incomer role card cannot be removed from the electrical diagram but can be substituted by the transfer switch card if needed.

The electrical diagram is built by adding role cards out of a list. The list of role cards is accessible in the foldable section on the left side of the page:

- Residual current relay
- Group feeder
- Outgoer
- Residual current circuit breaker
- Load circuit control
- Scheduling-Management
- Energy meter
- Switch disconnecter
- Miscellaneous
- Low voltage supply
- Signalisation
- Transfer switch
- Generator protection

For each role card in the electrical diagram, the user shall choose a product in the proposed selection of Schneider Electric catalogue before moving to the next steps in the application.

Any change to the electrical diagram and in the products selection in a panel can be done from the **Diagram** page of this panel.

No change is possible from any other page of the application.

Build the Electrical Diagram

To build the electrical diagram of the panel, select a role card from the list, then drag and drop it on any + popping up while dragging.

To identify the card in the electrical diagram and in the single line diagram, it is recommended to name the card in the bottom part, using the free text, and having a maximum of 35 characters.

The designation is automatically reported in the single line diagram and in the front face view.

A button at the right of the designation space allows to display or hide the role cards located downstream.

It is possible to change the organization of the electrical diagram by:

- Dragging a card:
 - To move it in the electrical diagram by dropping it on any + popping up
 - To put it to the workbench and move it back in another place of the electrical diagram. The drop possibilities depend on the chosen card on one hand and on the cards already positioned upstream and downstream on the other hand
- Clicking on the top-right corner of the card:
 - To cancel it
 - To duplicate one copy or more
 - To send it to the workbench

These actions are not applicable to the main incomer card.

All cards located downstream are moved, duplicated, and removed simultaneously with the upstream card.

Select a Product in a Role Card

To select the adequate product, click **configure** in the card. A new window opens which proposes three options:

- Select a product category in the proposed catalogue with steps:
 - Select a product category.
 - Select a range.
 - Select the required set of characteristics in the range; the red figure on the top right of the page turns green when completed.
 - Get the reference or list of references; the product data sheet is accessible for each reference.
 - Validate to have all the selected product references in the role card.
- Select with a product reference:
 - Type the reference number of the main product, not valid for auxiliaries and accessories.
 - Select the product from the proposed list.
If the reference number does not match with the concerned role card, eDesign indicates the possible role card(s) matching to this reference number.
- Select one of the favorite products defined for this role card (Refer [Create a Favorite Products or a Group of Favorites](#), page 10).
 - Select the favorite product from the list.

It is possible to modify the concerned product by clicking on the upper right corner of the card:

- **Reconfigure** allows to modify the features of the product in the same range.
- **Remove product** allows to change the product range.

The products associated with a PowerTag sensor are highlighted with a dedicated radio wireless link pictogram.

Create a Favorite Products or a Group of Favorites

This function is accessible to logged in users only.

- To create a favorite product for a role, click the white star in the role card with this product. The white star turns green, the favorite product is added in the list for the role.
- To view the list of favorite products created for each role, click **My Favourite** tab on the left side of the screen.
- To add a favorite product in the electrical diagram, drag it from the list and drop it in the electrical diagram. It is possible to drag and drop a favorite product directly into the corresponding role card in the electrical diagram.
- To cancel a favorite, click the green star in the card either in **My Favourite** tab or in the electrical diagram. The star turns white and the favorite product disappears from the list.

- The same product can be selected as favorite for several roles.

The list of favorite products is accessible for any existing or new project created with the user's login. It is possible to display a selection of roles in My Favorite list.

The creation and the management of a group of favorites is similar but concern the perimeter of several cards connected together. The group of favorites is created by clicking on the star from the upstream card, once the downstream cards are configured. Then the group of favorite appears in the concerned section with the given designation if the user has used the designation possibility.

This function is particularly useful to define a groupfeeder type with downstream outgoers or to define a type of protection associated with a load circuit control or a scheduling-management card.

Circuit Breaker and Switch Disconnecter Favorite

The circuit breakers, switch disconnectors and residual current circuit-breaker selected as favorite product are sorted by switchboard type (main panel or subpanel).

A reminder is located on the top of the diagram view at the left side to precise the type of the switchboard which is being configured by the user.

If the user wants, under his responsibility, to use one of these favorites in a different switchboard type, he can access to it by clicking **all** on the favorites role filter.

Navigate in the Electrical Diagram

To navigate in the electrical diagram:

- Handle the electrical diagram wherever possible (for example, empty space) and move it in all directions.
- Use the mini map bottom-right to figure out which part of the electrical diagram is displayed.
- Handle and move the blue rectangle in the mini map to navigate into the electrical diagram.

To zoom in and zoom out the electrical diagram:

- Use the scroll wheel of the mouse or two fingers on the computer pad.
- Click the magnifying glass icon at the top of the page.

Navigate from the Electrical Diagram or from the Single Line Diagram to another One Panel Part of the Same Project

The panel list is accessible on the top left side in the front view.

To navigate towards another panel in the project.

- Click on the name of the displayed panel
- Click on the name of another panel in the list

Create the Single Line Diagram of the Panel

This part creates the single line diagram of the electrical diagram of the panel.

It is accessible by clicking the **Single Line Diagram** button. Navigation in the single line diagram is similar to navigation in the electrical diagram.

A functional mark is generated in the single line diagram for each product listed in the Appendix 1. It is identified by a letter indicating the function and a number indicating the position of the device in the diagram (from left to right and then from the top to the bottom whatever the function is).

A locking button located at the top right of the screen allows to freeze the numbering. It is then possible to modify the single line diagram without modifying the existing functional marks. The numbers of the new functional marks will be added to the last number created before the locking, whatever the position is in the single line diagram.

After unlocking, all the functional marks are automatically redesigned according to numbering principle mentioned above.

Notes can be added by typing in the corresponding zone top left .

For each branch, a set of characteristics can be added in the title block table below the single line diagram by clicking in a cell and typing the text.

NOTE: No change in the electrical diagram is possible from this page.

The single line diagram can be generated in .pdf format by clicking the **Export** button; it is also accessible from the **Documents** page.

Front View

The list of the panels in the project is accessible from the electrical diagram and single line diagram page.

To switch to another panel in the project:

- Click on the name of the panel which is currently displayed.
- Click on the name of another panel in the list.

Select the Enclosure

It is possible to directly select an enclosure range by clicking on the range picture and validate.

To get guidance in selecting a range, set the ratio of modular free space in the panel, set the enclosure characteristics in the proposed list, select a range not marked with an orange mark and validate.

It is required to fine tune the characteristics of the enclosure in the selected range.

Mount the Devices in the Enclosure

To mount or unmount the devices in the enclosure, select one or several devices in the workbench, then drag and drop them into the enclosure or out of the enclosure respectively.

It is possible to mount and unmount all the devices simultaneously in the enclosure using the dedicated buttons.

The **mount all**  principle is the following:

- The mounting order is similar to the one concerning the configured devices in the diagram view.
- A group feeder and its downstream devices must be on the DIN rail row, a row break is automatically achieved if there is no sufficient space to comply with this rule.
- When Prisma Set G is chosen as enclosure range, the mount all function selects automatically the 600 mm width in this enclosure range.

To fine tune the panel layout, it is possible to move one or several devices inside the enclosure in the **construction mode** by clicking the arrow button.

Select and Mount the Distribution Range

To open the distribution block selector, click the **add distribution** button.

It is possible to directly select a distribution block range by clicking the range picture and validate.

To select a range, set the distribution block characteristics in the proposed list, select the range which is not marked with an orange mark and validate.

It is required to fine tune the characteristics of the distribution block in the selected range.

It is possible to add comb busbars and other Schneider Electric products directly in the **BOM view** tab, **other products** button or **connected products**.

Complete the PrismaSeT Active Switchboard

In the mechanical elements section close to the workbench, it's possible to complete the switchboard with :

- DIN rail and modular front plate for the reserve space
- Earth bar
- DIN rail and plains plats for terminal blocks
- Front plate

A similar choice is proposed via a right-click, once the enclosure has been selected on the front face.

These four mechanical elements can be modified by selection on the front face and then a right click **modify the installation system**:

For the DIN rail and modular front plate, a modification for the height and the possibility to add blanking plate(s) is proposed.

For the DIN rail and plains plats for terminal blocks, a modification of the rail length and the height of the plate is proposed.

For the front plate, a modification of the height and the plate type (transparent, cut out) is proposed.

The button **add front plates** add automatically plates on the available space.

Modify the Enclosure Features

It is possible to modify the enclosure in the same range by right-clicking within the enclosure:

- Modify the enclosure characteristics
- Cancel the enclosure
- Modify the height
- Modify the width

It is possible to change the enclosure range by clicking the **modify range** button on the right side of the screen. The devices which are displayed in the workbench, to be then mounted in the new enclosure.

Information on the Panel

The following information is displayed on the right side of the screen:

- The characteristics of the enclosure.
- The empty space in the panel.
- The buttons to change the displayed layers of the panel.
- Modification of the enclosure dimensions.

Information on the Products in the Panel

By selecting either the entire enclosure or a device or a group of devices, the product descriptions are displayed in the properties section, which are grouped into three categories:

- Enclosure
- Installation system
- Devices and distribution blocks

To get the detailed information and documentation is available for each product by clicking on the link **product data**.

A mouse over a product mounted inside the panel allows to have the designation of this element defined in the diagram.

A left-click on a product makes a blue frame appear around the concerned and a black frame around the upstream device. This upstream-downstream identification function operates also for the products sorted in the workbench.

Create Snapshot of the Panel Front View

It is possible to create a snapshot of the displayed front view of the panel by clicking the camera icon on the top bar of the screen. The snapshot is saved on the computer and can be added to the project documentation (refer Documents, page 17).

The snapshot of the panel is included in the project report document.

Bill of Material

This section displays the list of products in the project.

The list of products includes the public price list value and net price value – for logged in users only, calculated with discount ratios by product family.

When a project can be updated (project designed before a new price list or a new discount rate), an information is displayed on the electrical diagram and on the bill of material view. a new column appears in the bill of material to visualize the new price list or the new discount rate or both. Once the user has validated the updating, all the net prices are updated with the new price list and new discount rate displayed.

The discount ratio values can be uploaded in an excel file by clicking the top left of the screen, then in the My Profile section.

It is possible to access the documentation of a product in the list of material by clicking on the reference number.

This list can display the references:

- For one panel
- For all the panels of the project

The list can be displayed in two ways:

- By panel, grouped by product category in each panel
- All the references of one panel or the entire project

It is possible to add products to the panels of the project in the **miscellaneous** section of the list of material at the bottom of the page. The products can either be:

- Selected from Schneider Electric connected products
- Selected from Schneider Electric other products
- Created by the user (for example, products from other suppliers by typing text in the list)

The list of material is included in the project report document.

The PowerTag Energy sensor products are highlighted with a radio wireless pictogram.

Documents

This page allows you to:

- export the list of materials in .xlsx format and save it on the computer.
- export the project report document in .docx format.
- export the single line diagram of the panels of the project in .pdf format.
- upload documents from the computer and attach them to the project.
- manage the list of documents attached to the project.

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