High-Speed Online Power Electronics Simulator

ROHM PLECS Simulator

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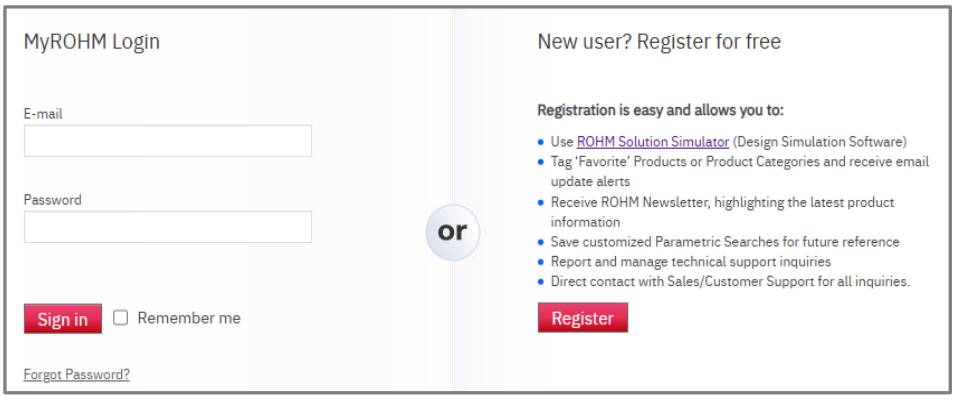
1. How to Access

Internet access and a registration for “MyROHM” are required in advance to use “ ROHM PLECS Simulator ”.

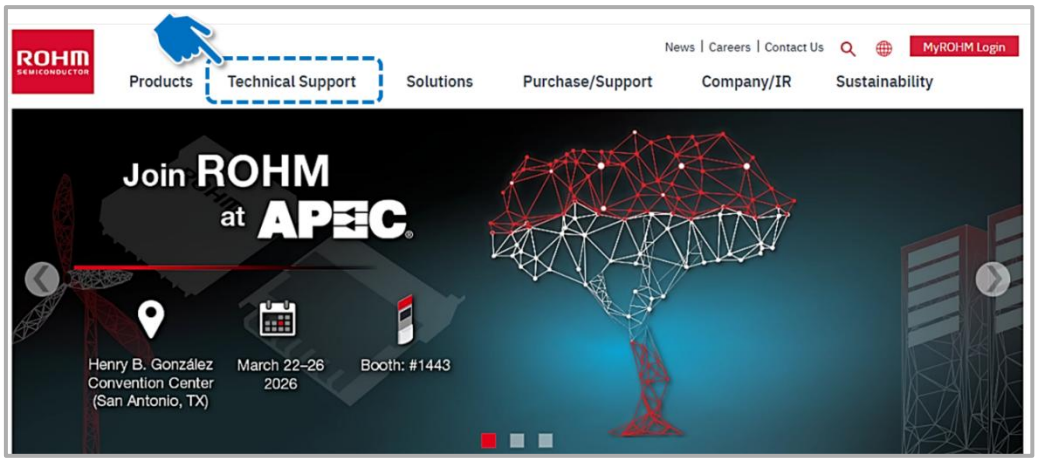
https://www.rohm.com/login?redirect=/

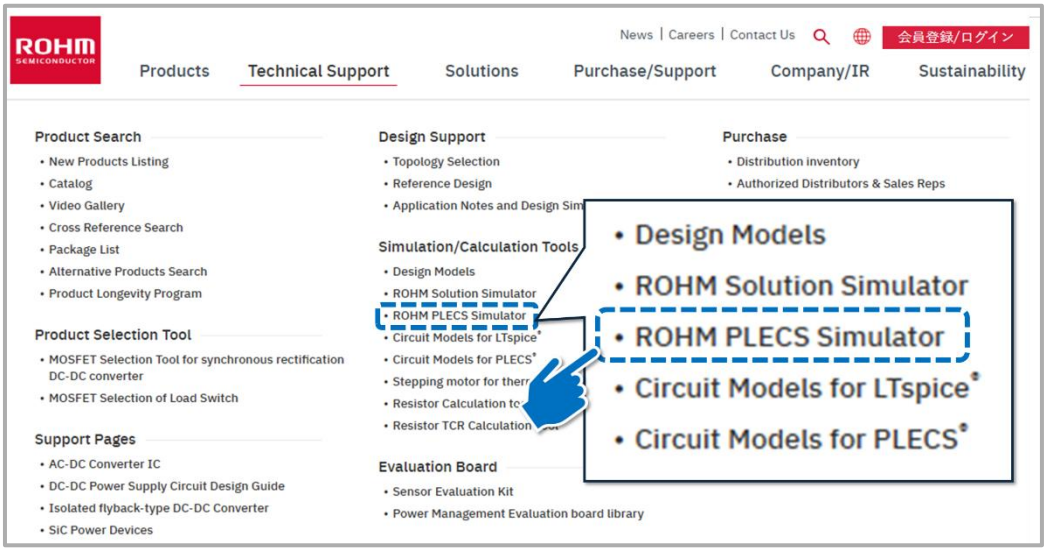


No. 68QS007E Rev.001
April 2026

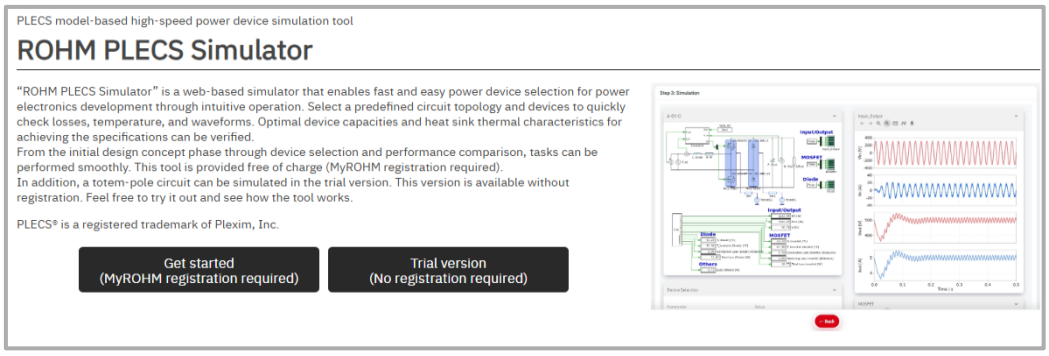
To start “ROHM PLECS Simulator”, please access from “Technical Support” in the top page of ROHM’s website.

https://www.rohm.com/

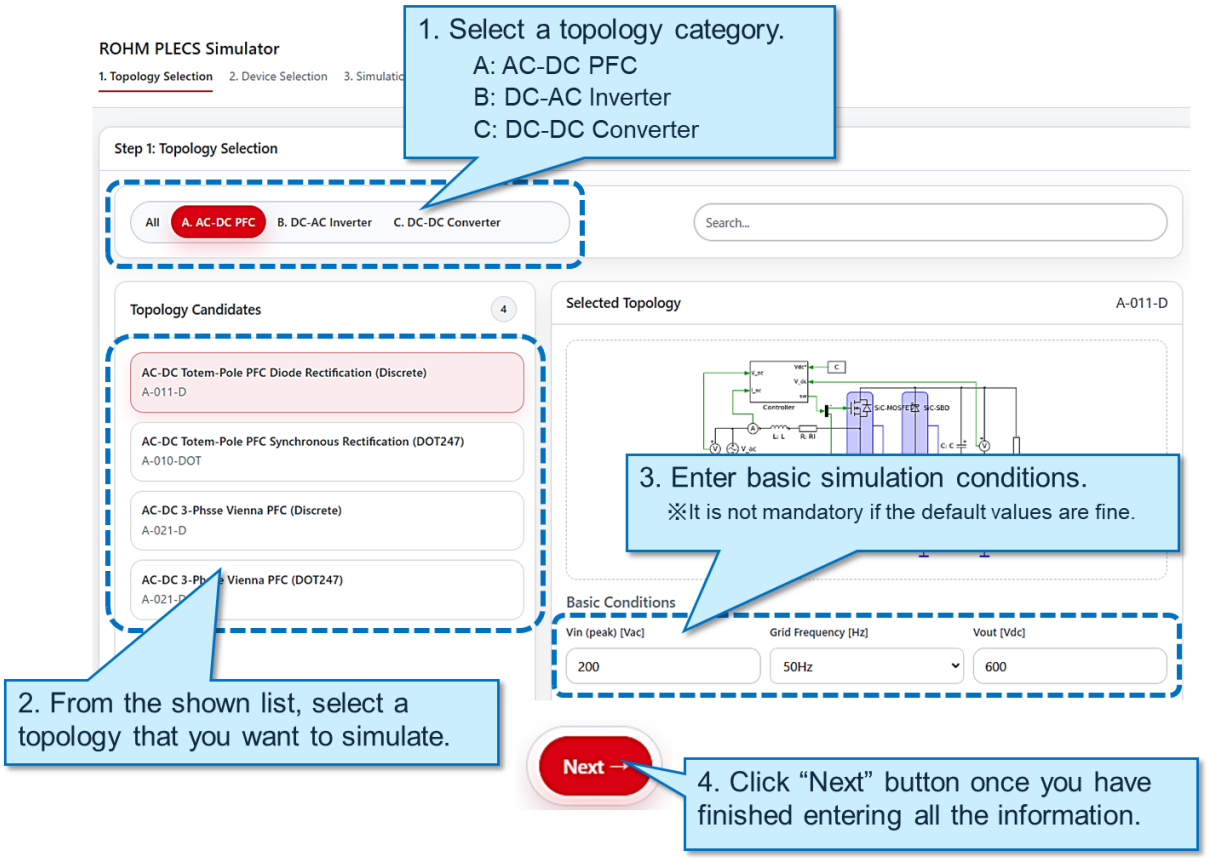




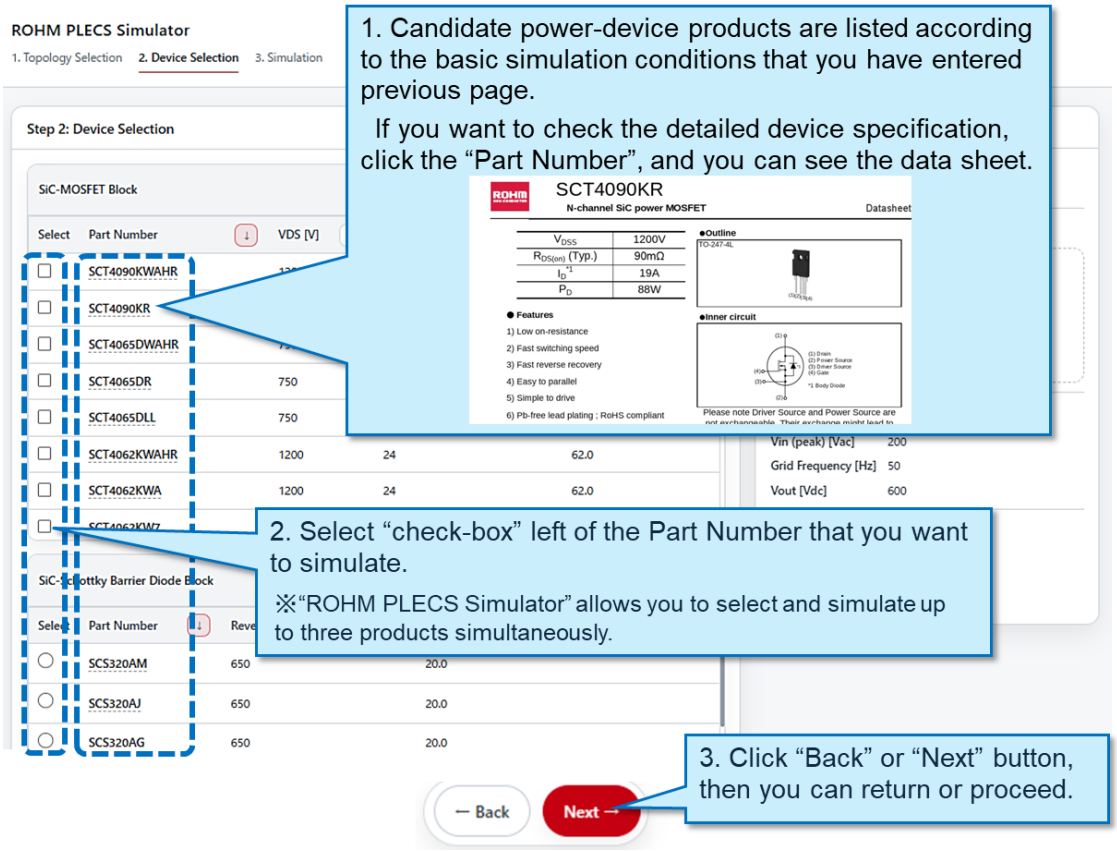
https://www.rohm.com/simulator/plecs-simulator



2. Select a Topology

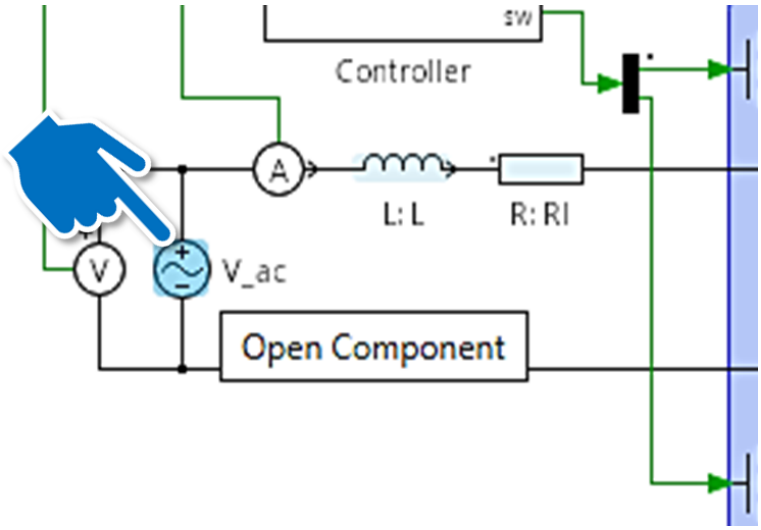


3. Select Power Devices

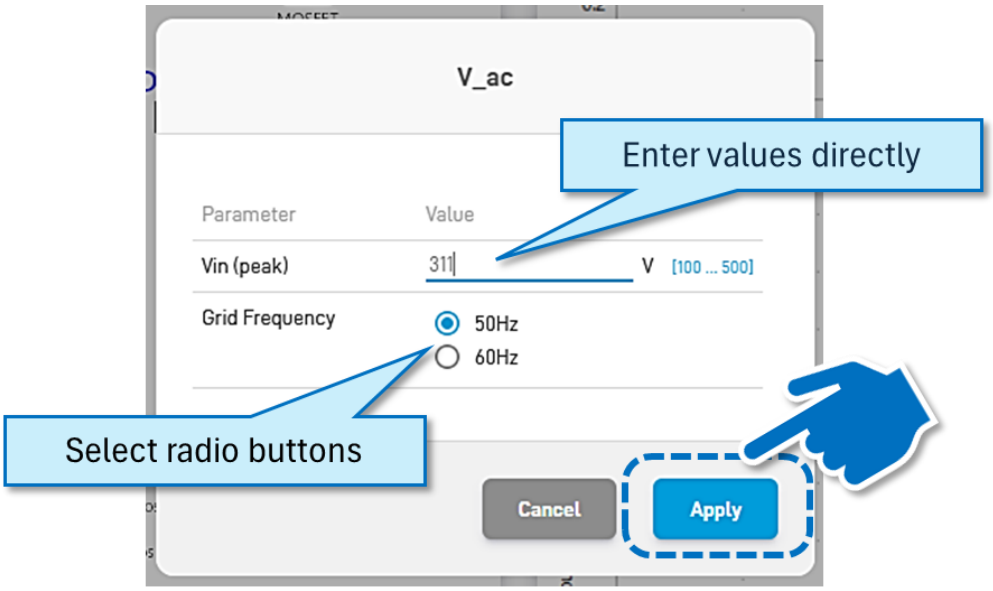


4. Configure Circuit Parameters (“Dialog” parameters)

1. Symbols whose parameters can be changed are colored light-blue in the circuit diagram.
2. Over your mouse cursor to the symbol that you want to change the parameter and the symbol color is turned to blue (e.g. “V_ac” symbol in the below).
3. Click the mouse’s left button.



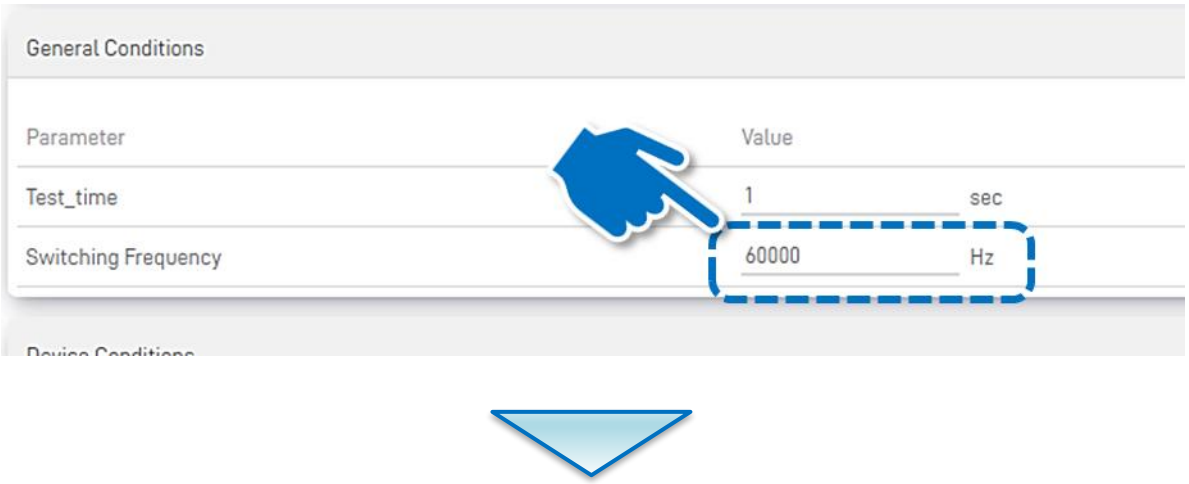
4. A new window like the below is opened.
5. You can change the parameters by entering the value directly* or selecting radio buttons.
6. Push “Apply” button after configuring all parameters.



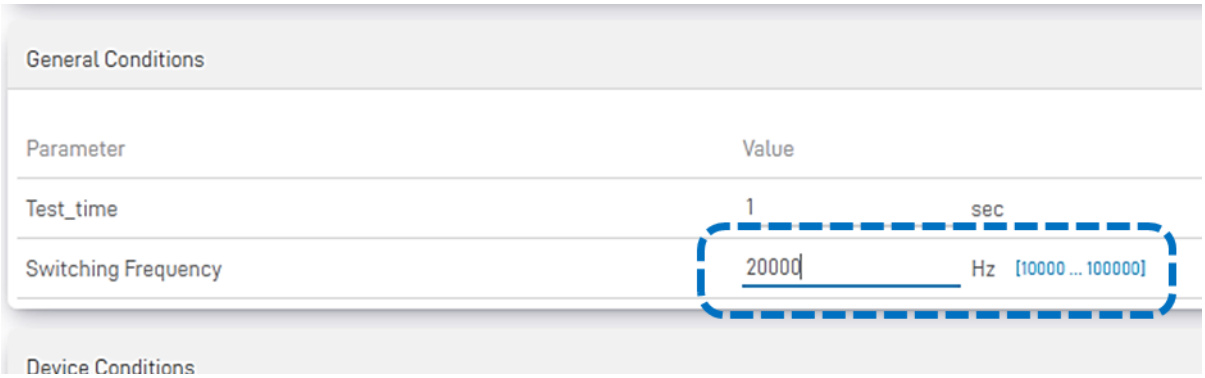
*Note: Parameters can be entered directly are limited by Min. and Max. values to avoid unexpected system errors.
(e.g. “Vin(peak)” is limited between 100 and 500V in the above.)

5. Configure Circuit Parameters (“Table” parameters)

1. Choose the parameter that you want change on the parameter tables (e.g. ”60kHz” of Switching Frequency in the figure below.)

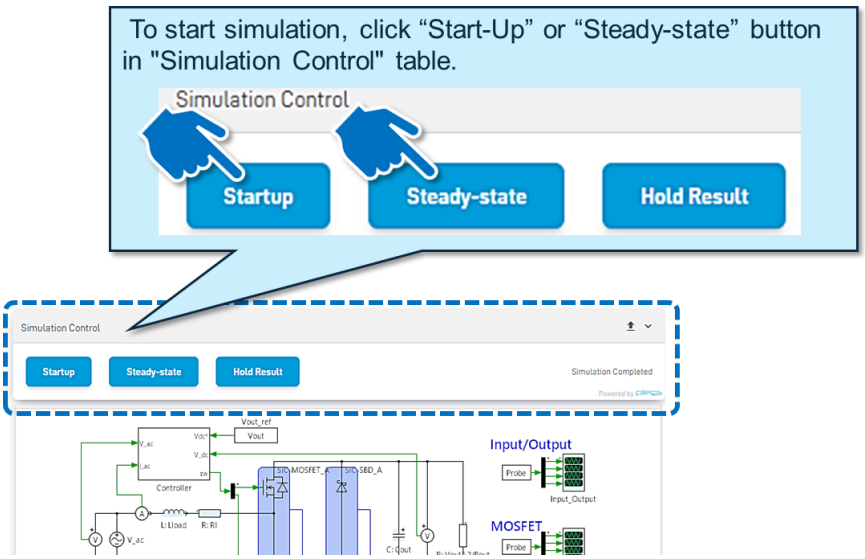


2. A blue under-line and variable range of the parameter are appeared.
3. Then, you can change the parameters by entering the value directly (e.g. “60kHz” was changed to “20kHz” in the figure below.)

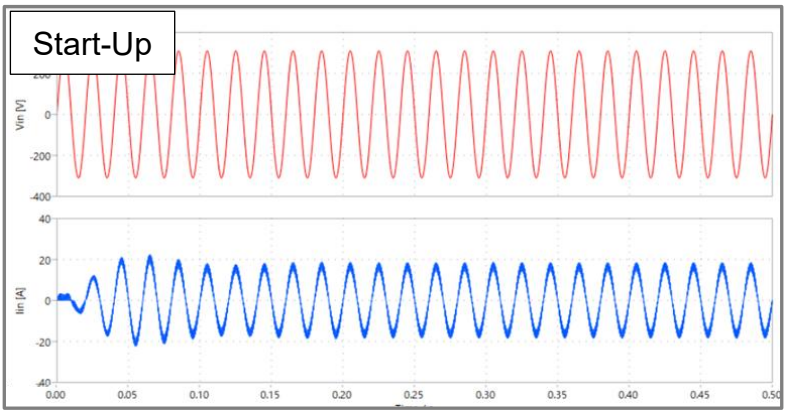


6. Run Simulation

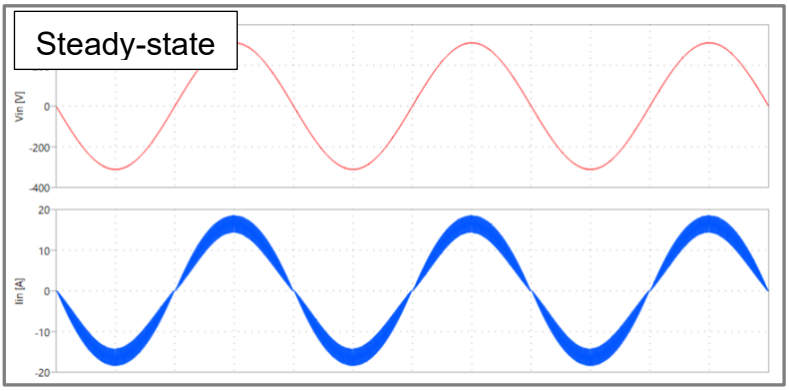
"ROHM PLECS Simulator" has two types of simulation modes ("Start-Up" and "Steady-state"). Please use the appropriate simulation mode depending on your needs.



■ "Start-Up" mode simulates all transient process from the start time (0 sec) to the end time that you configured at "Test time" in "5.Configure Circuit parameters (Table parameters)".

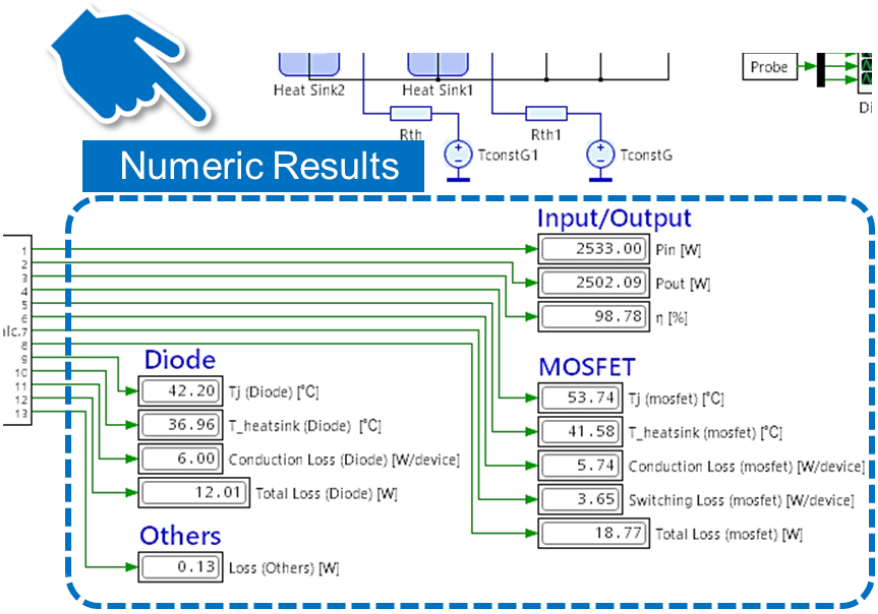


■ On the other hand, "Steady-state" mode shows only the steady-state results.

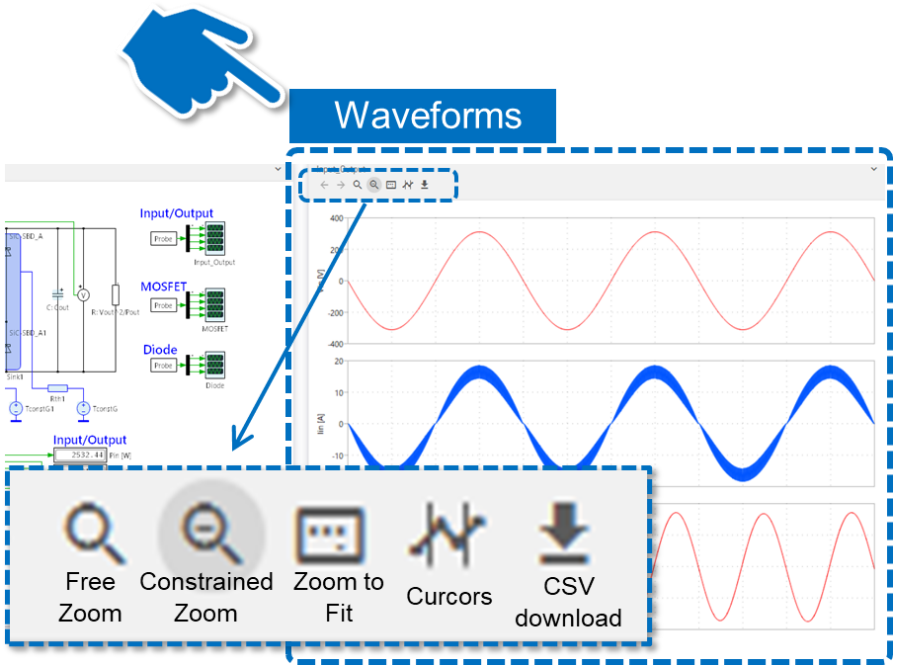


7. View Simulation Results

Numeric results (e.g. Power losses, Efficiency, Temperatures) are showed at the display blocks in the schematic window.

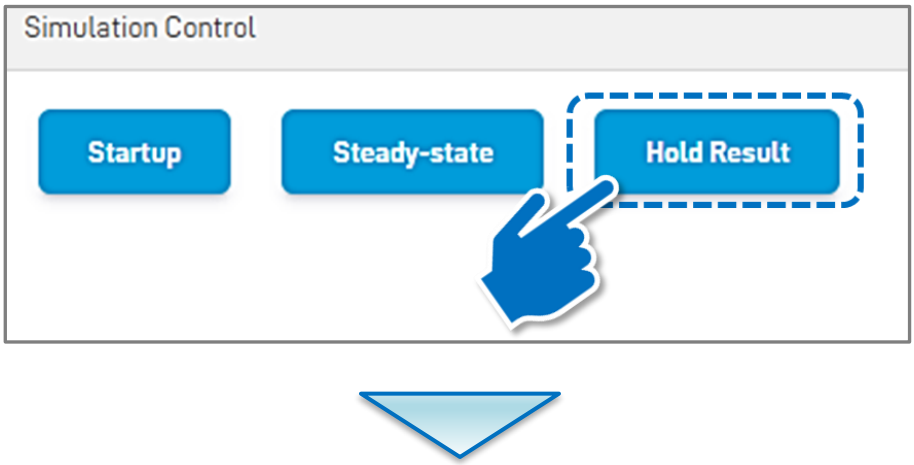


Waveforms are shown at the right side of simulation screen. You can Zoom-in and Zoom-out the waveforms and can also download the CSV data of waveforms.

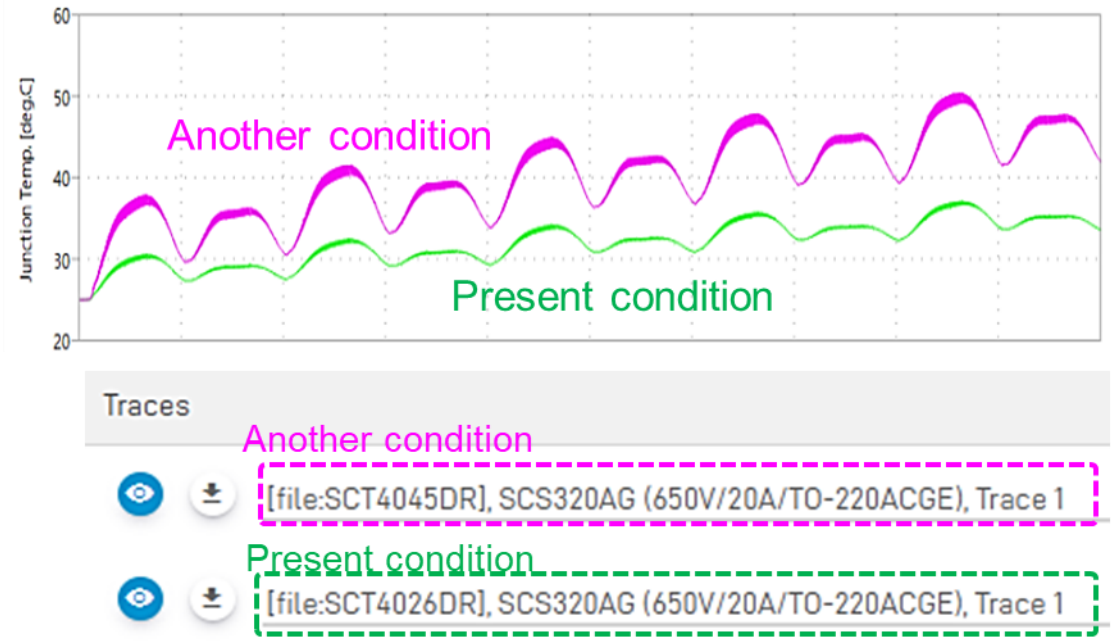


8. Hold Result Option

If you want to keep the present waveforms and to compare to another condition's waveforms, click "Hold Result" button in "Simulation Control" table.



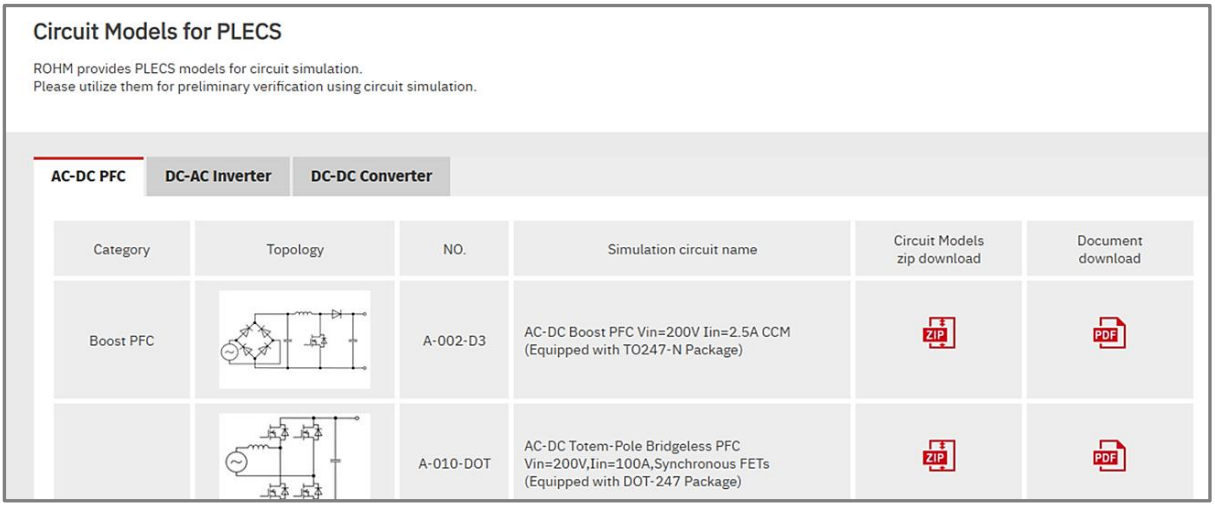
The present waveforms can be held, and after running another condition, its waveforms are going to be overwrapped in the same window.



Supplementals

All the original “PLECS circuits” in “ROHM PLECS Simulator” can be downloaded from ROHM’s website. Therefore, if you have a “PLECS license”, you can also run or modify these PLECS circuits on your PC.

https://www.rohm.com/support/plecs

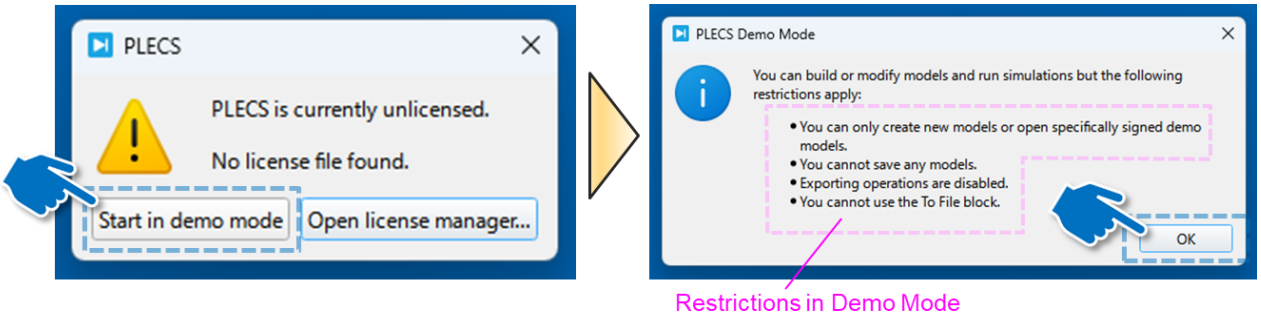


To run or modify* these PLECS circuits downloaded from the above, you must have installed "PLECS" simulation software on your PC and inquired its license*”. For more information, please visit the official website of Plexim.Inc.

https://www.plexim.com/download

plecs
Simulation Software for Power Electronics

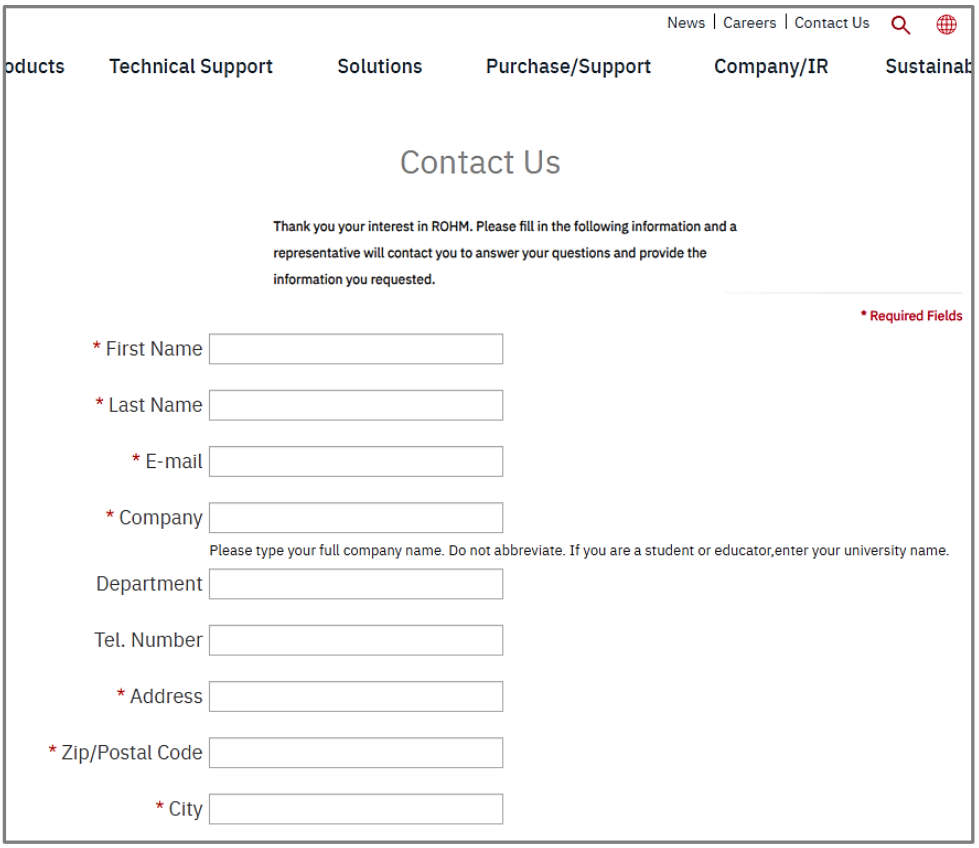
*Notes: For “Modifying” and “Saving” circuits, “Paid” or “Trial” license is mandatory.
For just “Running” and “Viewing” the circuit, “Demo Mode (No-license)” is available.



Contact Information

If you have any questions, comments, or need support* with “ROHM PLECS Simulator”, please contact us from the below.

https://www.rohm.com/contactus



*Notice: Technical support might be subject to a fee.

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