

SolidWorks Electrical Professional	
	Feature
1	<b>Single-line Schematics</b>
	Electrical system planning tool for creating complex embedded electrical system utilizing simple pictorial representations of electrical components and interconnectors.
2	<b>Multi-line Schematics</b>
	Schematic creation tool with a simplified user interface optimized for simplification of repetitive tasks.
3	<b>Mixed Schematic</b>
	Combine both single-line and multi-line drawings on the same schematic, while maintaining associativity.
4	<b>2D Cabinet Creation</b>
	Generate 2D panel representations from an electrical schematic, with 2D outlines of electrical components.
5	<b>Electrical Component and Symbol Library</b>
	Extensive library of industry-standard schematic symbols (IEC, ANSI, JIS, GB) combined with a database of manufacturer parts to provide an easily customizable and adaptable parts database through easy-to-use import tools.
6	<b>Design and Reuse</b>
	Suite of integrated tools for intelligent cut and paste, an easy-to-access selection of "favorite" components and circuit design elements, and the ability to reuse non-SOLIDWORKS Electrical design elements through easy-to-use import wizards.
7	<b>Automated Terminal Drawing Creation</b>
	Automatically generate terminal drawings based on and synchronized with the real-time design.
8	<b>Report Generation</b>
	Automatically generate reports based on real-time design database queries. Develop custom reports using integrated custom report creation tools.
9	<b>Automated Contact Cross-referencing</b>
	Electrical contacts are automatically cross-referenced in real time and synchronized based on the availability and type of contacts from manufacturer-specific components.
10	<b>Advanced Formula Manager</b>
	From wire naming to project name formulas, SOLIDWORKS Electrical includes enhanced formula capabilities.
11	<b>Electrical Component and Symbol Library Management</b>
	Integrated Symbol Library that provides easy access to electrical design elements and components.
12	<b>SOLIDWORKS Electrical Content Portal</b>
	Web-based content portal providing access to an extensive library of industry-standard schematic symbols and a database of manufacturer parts.
13	<b>Link to SOLIDWORKS 3D CAD</b>
	SOLIDWORKS Electrical Schematics is linked to 3D SOLIDWORKS assemblies, facilitating the verification of proper fit, planning of all wire, cable, harness routes, and calculation of all wire lengths prior to any assembly.
14	<b>Common ECAD and MCAD Database</b>
	SOLIDWORKS Electrical Schematics are bi-directionally linked and allow multi-user interaction in real time. ECAD and MCAD share a common database, ensuring consistency.
15	<b>PLC Tools</b>
	The Programmable Logic Controller (PLC) management tools automate many PLC wiring design tasks, along with the ability to import PLC data and labels

16	<b>Dynamic Connector Tools</b>
	Powerful, easy-to-use connector wizard helps simplify the creation, design, and use of electrical connectors.
17	<b>Real-time Collaboration</b>
	Synchronized, bi-directional environment enables multiple users to work on the same project simultaneously in real time for easier project collaboration.
18	<b>SOLIDWORKS PDM Integration</b>
	Automated publishing of schematic data, drawings, and reports for archival and revision control.
19.	<b>Real-time Synchronization</b>
	SOLIDWORKS Electrical synchronizes all project design data in real time, bi-directionally in a multi-user collaborative environment between 2D schematics and the 3D model. This synchronization unifies key information (such as BOM and design data) between design disciplines and users.
20	<b>Global Project Settings</b>
	Addition of global project setting for drawing style, project attributes and wire-style managers.
21	<b>Classifications</b>
	Ability to create custom part classifications, enhancing part management and selection.
22	<b>Manufacturer Part</b>
	Enhanced ability to add external links to PDF files, enhanced data fields, and addition of cable lengths for pre-defined and custom cables.
23	<b>SymbolEditor</b>
	Enhanced support of index and passive symbols.
24	<b>Marks and Wires Management</b>
	Enhanced support for number group options, reuse of unused wire marks, natural ordering support, and enhanced DWG import capabilities.
25	<b>Enhanced SOLIDWORKS PDM Connector</b>
	Enhanced PDM interface providing electrical and mechanical data management based on proven SOLIDWORKS PDM capabilities.
26	<b>Multi-Level Terminals Strip Support</b>
	Support of 3D terminal strip management with capability to renumber and set component terminal properties. Additional capabilities include the ability to add manufacturer parts, circuits, and capability to add accessory components to terminal strip.
27	<b>Distributed Mode</b>
	Enhances SOLIDWORKS Electrical Schematic performance by minimizing network traffic and deferring real-time project updates. This technology provides a performance boost on large projects and remote access, without having to use special techniques.
28	<b>Collaborative Electrical-Mechanical Development</b>
	SOLIDWORKS Electrical 3D addresses the needs of multi-user and cross disciplinary projects with a synchronized design environment between the electrical and mechanical teams to readily implement schematically defined electrical systems into a SOLIDWORKS 3D CAD model. Multiple electrical and mechanical engineers can work on the same project simultaneously in real time using SOLIDWORKS Electrical 3D's advanced database technology with its bi-directional, multi-user environment.

29	<p><b>Electrical Design in 3D CAD</b></p> <p>Designers and engineers can integrate electrical schematic design data from SOLIDWORKS Electrical 3D into a SOLIDWORKS 3D CAD model for CAD-embedded, electrical system design. This real-time, bi-directional, multi-user tool enables more collaborative design between electrical and mechanical designers and allows for placement or removal of electrical components in the 3D CAD model. Easily create the electrical interconnect of the electrical 3D elements with auto-routing that allows for the planning and documentation of route paths and associated data (such as length of wires, cables, and harnesses within the system).</p>
30	<p><b>Auto-Routing</b></p> <p>Advanced SOLIDWORKS routing technology to simplify the auto-routing process for wire, cables, and harness in the 3D CAD model.</p>
31	<p><b>Electrical Harness Design Planning</b></p> <p>SOLIDWORKS Electrical 3D creates a virtual “design-in-place” electrical system development environment that provides auto-routing of a schematically defined electrical harness in a SOLIDWORKS 3D CAD model, which simplifies harness development while eliminating errors. Once the virtual harness has been created, SOLIDWORKS Electrical 3D can produce detailed assembly drawings using the built-in drawing tools. These drawing creation tools include capabilities to create ballooned assemblies, pin board or cut list drawings, as well as associated BOM documentation.</p>
32	<p><b>Embedded Electrical System Design Planning</b></p> <p>SOLIDWORKS Electrical 3D is an easy-to-use planning tool for rapid collaborative design of schematically defined embedded electrical systems that can be implemented in a SOLIDWORKS 3D CAD model with an intuitive graphical user interface and the intelligence of traditional multi-line tools. SOLIDWORKS Electrical 3D creates a new technology paradigm, incorporating purpose-built design tools for schematically driven embedded electrical subsystem development.</p>
33	<p><b>3D Electrical Cabinet Design</b></p> <p>Combining SOLIDWORKS CAD and Electrical technologies, SOLIDWORKS Electrical 3D provides a design environment enhanced for electrical 3D cabinet design. This cohesive environment is synchronized in real time without the use of external files and can utilize existing CAD designs. With SOLIDWORKS automation tools, SOLIDWORKS Electrical 3D provides comprehensive electrical 3D cabinet design and documentation capabilities.</p>