

SOLIDWORKS ELECTRICAL

PRODUCT MATRIX



	ELECTRICAL 3D WITH ELECTRICAL SCHEMATICS PROFESSIONAL	ELECTRICAL SCHEMATICS PROFESSIONAL	ELECTRICAL SCHEMATICS STANDARD
Platform Collaboration	✓	✓	
Synchronize all project designs in real time and bi-directionally <ul style="list-style-type: none"> • Collaborative environment • Multi-platform use (Schematic, SOLIDWORKS, PDM Professional) • Synchronizes key information (e.g., Bill of Material and design data) between design disciplines and users 			
Multi-user Environment	✓	✓	
Environment allows for concurrent design. <ul style="list-style-type: none"> • Real-time collaboration • Multiple users can work in the same project at one time. • Multiple users can work in the software and share data • Mechanical and Electrical users can collaborate on designs concurrently (with the use of SOLIDWORKS Electrical 3D) 			
SOLIDWORKS PDM Connector	✓	✓	
Manage electrical and mechanical data in one system based on proven SOLIDWORKS PDM capabilities and an enhanced PDM interface. Automate publishing of schematic data, drawings and reports for archival purposes and revision control.			
Electrical Component Library	✓	✓	✓
Access to extensive integrated libraries of manufacturer parts. <ul style="list-style-type: none"> • Create new parts easily • Customize and adapt parts • Import wizards and tools • Web-based portal for access the libraries of parts, symbols, 2D footprints, DWG's • Add external links to PDF data sheets 			
Hyperlinks	✓	✓	✓
Links available for inconnectivity - Component instances - origin/destination arrows - links between component and 3D models - BOMs to schematics and manufacturer parts - links translate into functional PDF - additional data sheets added to project are included in project files.			

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Electrical Design in 3D CAD	✓		
Ease of use with SOLIDWORKS Assemblies. <ul style="list-style-type: none"> Place, insert, or remove 3D CAD models for electrical components in a project Fully control paths for routing wires, harness, and cables to follow Automatic routing due to schematics controlled connectivity Associate existing 3D models to electrical componentry Allow for planning and documentation of route paths and associated data (such as length of wires, cables, and harnesses within the system) Facilitate the verification of proper fit, planning of all wire, cable and harness routes, and calculation of all wire lengths prior to any assembly 			
3D Electrical Cabinet Design	✓		
Utilize existing CAD designs as well as SOLIDWORKS automation tools to create comprehensive electrical 3D cabinet designs and documentation. This cohesive environment is synchronized in real time without the use of external files and can utilize existing CAD designs.			
Single-line Schematic	✓	✓	✓
(AKA Line Diagram) Create complex embedded electrical systems utilizing simple pictorial representations of electrical components and interconnectors. Functionality is perfect for documenting Ethernet connectivity, positions of devices on equipment layouts, and more.			
Multi-line Schematics	✓	✓	✓
Create schematics with an easy-to-use interface optimized for simplification of repetitive tasks.			
Mixed Schematics	✓	✓	✓
Combine both single-line and multi-line drawings on the same page while maintaining associativity.			
2D Cabinet Creation	✓	✓	✓
Generate 2D panel representations from an electrical schematic, with 2D dimensioned outlines of electrical components.			

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Design and Reuse Speed designs with 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.	✓	✓	✓
Automated Terminal Drawing Creation Generate terminal drawings automatically based and synchronized to the real-time design.	✓	✓	✓
Report Generation Generate reports automatically from real-time design database queries.	✓	✓	✓
Automated Contact Cross-Referencing Sync and cross-reference electrical contacts automatically in real time based on the availability and type of contacts from manufacturer-specific components.	✓	✓	✓
Advanced Formula Manager Take advantage of enhanced formula capabilities from wire naming to project name formulas.	✓	✓	✓
Electrical Symbol Library Access an extensive library of industry-standard schematic symbols (IEC, ANSI, JIS, GB) to easily customize and adapt parts with easy-to-use import tools. Symbol Editor to Edit index and passive symbols with enhanced tools.	✓	✓	✓
Marks and Wires Management Take advantage of number group options, reuse of unused wire marks, natural ordering support and enhanced DWG import capabilities.	✓	✓	✓
Dynamic Connector Tools Simplify the creation, design and use of electrical connectors with the powerful, easy-to-use connector wizard.	✓	✓	
Customizable Reports & Documentation Automatically generate reports based on real-time design database queries, with custom reports created via integrated custom report-creation tools. Develop custom reports using integrated custom report creation tools.	✓	✓	

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PLC Tools	✓	✓	
Automate many PLC wiring design tasks and import PLC data and labels with Programmable Logic Controller Management (PLC) management tools.			
Multi-level Terminals Strip Support	✓	✓	
Manage 3D terminal strips and renumber/set component terminal properties, as well as add manufacturer parts, circuits and accessory components to terminal strip.			