CADISON® Electrical-Designer is a comprehensive solution for schematic (SLD, Circuit diagram, etc.) & controls design, sizing calculations, 3D cable tray & panel layouts, automatic report generation, bill of materials (BOM), material take-offs (MTO).
CADISON® Electrical-Designer for Electrical Engineering, design documentation, reports, and management for the entire life-cycle.

Key Features:
- Intelligent Schematics (SLD, Circuit Diagram)
- Engineering Calculations
- Automatic Device Tagging & Wire Numbering
- Automatic Terminal Drawing
- Quick Coil & Contact Cross Referencing
- Automatic Legend Creation
- Panel Layouts (2D/3D)
- 3D Cable tray routing
- Automatic GA Extraction from 3D Layout
- SLD Interface with ETAP for comprehensive Electrical Analysis and Simulation
- Automatic Reports Generation (Line List, Load List, Cable List, etc.)

Intelligent Schematics:
- Standard object libraries (DIN, IEC, ANSI, etc.) for creation of schematics
- Intelligent schematics and circuit diagrams based on inputs such as load list.
- Automatic Terminal Drawings with Field device information (wires, destination components, etc.) of all terminals along with ‘To and From’ connected objects
- Automatic generation of PLC schematics from I/O list
- Numbering and identification system in accordance with DIN/KKS standards

Engineering Calculations:
- Cable Sizing - based on users inputs such as rated power, rated voltage, load current, actual current and number of runs required.
- Transformer Sizing Calculation for load requirement of the entire plant
- Battery Sizing Calculation
- Earthing Calculation to calculate total earth resistance of a system

3D Cable Tray & Panel Layouts:
- Cable Tray Routing: enables the Users to quickly create/route complex cable tray(s) with an intuitive interface. (system identifies the possible options based on cursor position and displays appropriate cable tray objects)
- Space planning of components for 3D panel layout design using standard catalogs of panels/enclosures
- Accurate BOM for Cable trays and panel layouts

Automatic Reports:
- Configurable reports for the list of electrical input/output and automation components
- Considerable number of predefined report formats such as bill of materials(BOM), cable lists, cable tray lists, terminal list, wiring list, etc.
- Reports in MS Word, Excel, PDF formats.
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CADISON® Electrical-Designer Deliverables

Key SLD
3D Modeling of Captive Power Plant
Detailed Trench View
Substation Room Layout
Panel Room Layout
Cable Tray Branches up to Panels
Cable tray Layout
Laying of Cable Trays on Structures
Key Single Line Diagram

Why CADISON® Electrical-Designer?
- Single platform for schematics, calculations, 3D & 2D layouts, reports, etc.
- Built-in Project/data access control and ability to define user rights.
- Conceptual cost estimator with tree structure (work breakdown structure) with ERP Integration
- Sizing calculations (cable sizing, transformer sizing, UPS / battery sizing and grounding calculations)
- 3D layouts for cable tray, panel layouts, etc. (Integrates with CADISON® P&ID and 3D-Designer)
- Built-in version(revision) control and workflow management
- Flexibility to customize reports to one’s own company standards.
- Built-in rule-based Q & A & Error Checking feature – ‘Logic Analyzer’. (You can configure the Quality Checks)
- ETAP Interface for Short circuit, Voltage drop calculation.

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