SIEMENS

Press

Zug (Switzerland), November 19, 2020

Siemens digitalizes electrical planning in machine building and plant engineering

- **TIA Selection Tool enables mechanical, electrical and automation planning on a single platform**
- **Complete standards know-how for electrical planning integrated in one software program**
- **Time-saving dimensioning of protection and switching devices, including essential design calculations**

With “Control Panel Design” Siemens Smart Infrastructure has integrated new electrical planning features into TIA Selection Tool, the Siemens configuration and ordering software. This makes electrical pre-planning completely digital. Now, electrical planners can design and dimension the main electrical components of a machine quickly, easily, and in accordance with IEC and UL standards. This reduces the required effort to perform the task, minimizes potential error sources, and helps machine and control panel builders improve their competitiveness. TIA Selection Tool is designed to make it easy and convenient to configure and select all components of industrial control panels. By integrating the new features, the tool allows users to design electrical as well as mechanical and automation components using one set of data and one platform. This lays the foundation for significantly more efficient development processes, faster lead times, and smarter electrification solutions for industrial environments.

“Because of increasing automation and the growing demand for flexibility, availability and energy efficiency, the requirements in machine and control panel manufacturing are more complex than ever. At the same time, manufacturers, and operators are faced with increasing cost pressure,” said Andreas Matthé, CEO of Electrical Products at Siemens Smart Infrastructure. “Control Panel Design is a small revolution in electrical planning. The software allows machine and control panel

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Reference number: HQSIPR202011136060EN

builders to make their value chain significantly more economical through digitalization."

Standards-compliant electrical planning by mouse click

Engineering, design, and documentation account for almost half of the total cost of control panel construction. Many time-consuming tasks, especially in electrical planning, are still performed manually, including selecting components and calculating cross-sections and short-circuit currents. As a result, there is a high potential for digitalization.

The integration of Control Panel Design in the TIA Selection Tool makes electrical planning tasks significantly easier and faster. When planning the electrical components of a machine, all that needs to be entered is the corresponding motor information. The software then guides the electrical planner step-by-step through the configuration based on freely selectable parameters needed to determine the cable cross-section, such as type of routing, grouping and ambient temperatures. Protection and switching components suitable for the motor are automatically displayed at the click of a button. This includes accessories as well as cable cross-sections and short-circuit values. The TIA Selection Tool supports the entire Siemens portfolio of switching and protection devices for the IEC and UL markets.

In addition, the machine's main circuit is displayed in a single-line diagram to support visual planning. After planning is complete, all technical data and calculation results, including data required for the verification of the short-circuit strength in accordance with IEC 61439-1, are output as detailed documentation.

The offline version of the TIA Selection Tool can be downloaded free of charge from: www.siemens.com/tia-selection-tool-standalone
The new Control Panel Design features will be available in the offline version of the TIA Selection Tool as of December 7, 2020.

This press release as well as a press photo can be found at https://sie.ag/3lwGx8S

For more information on Siemens Smart Infrastructure, see www.siemens.com/smart-infrastructure

For more information on Control Panel design, see www.siemens.com/cpd

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Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. SI creates environments that care. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland, and has around 72,000 employees worldwide.

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. Active around the world, the company focuses on intelligent infrastructure for buildings and distributed energy systems and on automation and digitalization in the process and manufacturing industries. Siemens brings together the digital and physical worlds to benefit customers and society. Through Mobility, a leading supplier of intelligent mobility solutions for rail and road transport, Siemens is helping to shape the world market for passenger and freight services. Via its majority stake in the publicly listed company Siemens Healthineers, Siemens is also a world-leading supplier of medical technology and digital health services. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power that has been listed on the stock exchange since September 28, 2020.
In fiscal 2020, which ended on September 30, 2020, the Siemens Group generated revenue of €57.1 billion and net income of €4.2 billion. As of September 30, 2020, the company had around 293,000 employees worldwide. Further information is available on the Internet at www.siemens.com.