

New Siemens 3WA air circuit breakers now upgradable from the web

- **Flexible addition of features via software protects investments**
- **New protection technologies prevent failures with distributed power supply**
- **Seamless integration in digital environments**

With the new 3WA series, Siemens Smart Infrastructure is updating its Sentron portfolio of air circuit breakers. As a core element of low-voltage switchboards, they reliably protect electrical installations in buildings, infrastructures and industrial facilities from damage caused by short circuits, ground faults or overload faults. At the same time, the new 3WA circuit breakers meet all low-voltage power distribution requirements in digital environments. They support software-based planning and engineering, digital testing and monitoring, and seamless integration in automation and IoT systems. For the first time, upgrades can be completed 100 percent digitally. Users simply download new features from the Internet and add them using an app.

Siemens circuit breakers are designed for 30,000 operating cycles while requiring only one inspection per year. With a potential service life in excess of 100 years, their practical life averages approximately 10 years.

“Distributed energy systems, digitalization and the Internet of Things will all place ever higher and more complex demands on electrical power distribution,” said Andreas Matthé, CEO of Electrical Products at Siemens Smart Infrastructure. “Our new circuit breakers are well equipped to handle these challenges. They are flexible enough to adapt to the tasks of tomorrow without needing to be swapped out.”

When technological requirements change, it is easy to add new features to the electronic trip unit (ETU600) installed in the 3WA air circuit breakers using the Sentron “powerconfig” commissioning software and a USB or communication port. The features are available online and are continually expanded by Siemens. Users benefit from high investment protection.

High reliability in distributed energy systems

Today, a third of all energy generated worldwide comes from renewable sources. By its nature, wind and solar energy can cause the grid voltage to fluctuate, which in turn can lead to costly failures in industrial and building operations. According to the European Power Quality Survey Report, 30 to 40 percent of all unplanned equipment downtimes can be traced back to inadequate supply quality. The new 3WA circuit breakers can handle voltage fluctuations of up to 10 percent, reliably preventing false tripping and failures.

As active grid participants, infrastructure and industrial systems produce, store and use their own energy or feed it into the grid. This requires technology capable of handling bidirectional power flows. The 3WA air circuit breakers are now able to automatically adapt their protection algorithms to the actual direction of flow, thus maximizing the protection they offer for smart grid prosumers.

End-to-end digital lifecycle

For easy and error-free engineering, CAx data can be used to create digital twins of the 3WA air circuit breakers. The intuitive “powerconfig” software is used for parameterization. Just like the associated app, the “powerconfig” software allows for remote monitoring of the current contact states and sensors of all switches and hence early fault detection. Integrated communication and measuring functions capture energy data and transfer it to automation and cloud-based energy management platforms as well as medium-voltage systems. Switched Ethernet functionality makes it possible to use multiple communication protocols such as Profinet and Modbus TCP at the same time, allowing users to benefit from fast and powerful data transfers.

The 3WA air circuit breakers are available in three sizes with nominal currents from 630 to 6,300 A for AC applications and in one size with nominal currents of 1,000, 2,000 and 4,000 A for DC applications.

This press release as well as a press photo can be found at

<https://sie.ag/3l0QFGf>

For more information on Siemens Smart Infrastructure, see

www.siemens.com/smart-infrastructure

For more information on 3WA air circuit breakers, see

www.siemens.com/3WA

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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 2019, which ended on September 30, 2019, the Siemens Group generated revenue of €58.5 billion and net income of €5.6 billion. As of September 30, 2019, the company had around 295,000 employees worldwide on the basis of continuing operations. Further information is available on the Internet at www.siemens.com.