

Erlangen, April 19, 2018

Hannover Messe 2018, Hall 9, Booth D35

Siemens develops SF₆-free gas-insulated medium-voltage switchgear

At this year's Hannover Messe, Siemens will present another medium-voltage switchgear that doesn't require sulfur hexafluoride (SF₆) as the insulating gas: the 8DAB 12. The system uses clean air consisting only of the natural constituents of ambient air as the insulating gas. The switchgear is a new addition to the 8DA and 8DB product family and also works with the proven vacuum switching technology. A vacuum-interrupter unit handles switching and arc extinguishing, while the natural gas insulates the current-carrying conductors inside the housing of the metal-encapsulated gas-insulated switchgear (GIS). This type-tested system is used to switch high currents at the primary distribution level. The single-pole encapsulated 8DAB 12 is a SF₆-free medium-voltage switchgear in the Siemens blue GIS portfolio. Switches and switchgear that use SF₆ as the insulating, switching, and extinguishing gas remain an important part of the Siemens portfolio.

"With the addition of the 8DAB 12, we're systematically expanding our portfolio of medium-voltage switchgear," says Stephan May, CEO of the Siemens Medium Voltage and Systems Business Unit. "We'll continue to offer our customers proven vacuum switching technology and single-pole switchgear encapsulation. They can now select the characteristics of the insulating gases used, depending on their requirements. The functionality and dimensions remain the same as the switchgear in our 8DA series." The new blue GIS portfolio is Siemens' answer to the market requirements of customers who want to use both the proven properties of GIS systems in their power grids as well as a non-chemical insulating medium. The blue GIS portfolio represents Siemens' work with insulating media that contain no fluorine gases and meet all the strictest safety and environmental standards.

In recent years, the company has intensively researched alternative insulating materials and technologies that approximate the properties of SF₆-based gas mixtures and simultaneously ensure safe and economical switchgear operation. The gas contained in the 8DAB 12 medium-voltage switchgear consists exclusively of natural constituents of the ambient air with no any chemical additives. These constituents are, for example, nitrogen (N₂) and oxygen (O₂). The 8DAB 12 is a gas-insulated medium-voltage switchgear that works with the proven vacuum switching technology, so the operator benefits from the all the advantages of this technology: no maintenance, compact design, high operating and personal safety, and high availability. Clean air provides the added benefits of easier handling during installation and recycling. In addition, it's not necessary to report the quantity of gas used.

Siemens has been using its vacuum interruption technology in its medium-voltage switchgear for more than 40 years. It's also used in high-voltage systems and recently in switchgear up to 145 kV as well. With vacuum switching technology, when the contacts open the switching arc burns in a metal vapor plasma between the contacts inside the vacuum extinction chamber. The metal vapor condenses back onto the contacts after the arc is extinguished. No decomposition products occur, and the arc doesn't affect the surrounding insulation. This means that natural gases that aren't suitable for extinguishing arcs can be used to insulate the current-carrying conductors.

This press release and a press picture is available at

www.siemens.com/press/PR2018040245EMEN

For further information on Division Energy Management, please see

www.siemens.com/energy-management

For further information on 8DAB 12, please see www.siemens.com/8dab12

Contact for journalists

Heiko Jahr

Phone: +49 9131 7 295 75; E-mail: heiko.jahr@siemens.com

Follow us on Twitter at: www.twitter.com/siemens_press

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for 170 years. The company is active around the globe, focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. With its publicly listed subsidiary Siemens Healthineers AG, the company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2017, which ended on September 30, 2017, Siemens generated revenue of €33.0 billion and net income of €6.2 billion. At the end of September 2017, the company had around 377,000 employees worldwide. Further information is available on the Internet at www.siemens.com.