

# Environmentally friendly medium-voltage energy distribution

Siemens Smart Infrastructure

## Fluorine gas-free energy distribution for medium-voltage applications

- Experts in Europe are deeply involved in the discussion about the use of SF<sub>6</sub>-free technologies in medium-voltage applications.
- Customer demand, however, is still in the early stages.
- Broad industrialization and hence availability of SF<sub>6</sub>-free technologies is expected in the next several years.

## Siemens blue Portfolio

By defining new, unusually strict benchmarks, Siemens as the market leader is going far beyond the applicable safety and environmental standards. Blue is thus becoming far more than just an environmental label and is pointing the way toward the ecological future of energy.

The “blue portfolio” makes it possible to modernize and expand the existing power grids at the highest level of safety and to simultaneously reduce our ecological footprint to an enormous extent without having to compromise on performance and economic feasibility.

You can find further information here:

<https://new.siemens.com/global/en/products/energy/ecotransparency.html>

## The blue GIS Portfolio for medium-voltage applications

Siemens Smart Infrastructure already offers fluorine-gas-free solutions with its blue GIS portfolio. All gas-insulated switchgear in this portfolio is equipped with Clean Air and Siemens vacuum technology and continues to offer all the advantages of gas-insulated switchgear: compactness, reliability, a long service life and maintenance-free design. Currently, systems for the voltage levels 12 kV and 24 kV are available.

### Features blue GIS

#### Clean Air

Insulation medium is based on the components of pure air



#### Vacuum-interrupter unit

Switching principle based on vacuum technology



#### Gas-insulated switchgear

All advantages of gas-insulated switchgear from Siemens are retained



## Press Releases

### NXPLUS C 24 – blue GIS

**May 26, 2020 | Siemens enables climate-neutral, safe energy distribution with new Clean Air switchgear**

Siemens Smart Infrastructure is expanding its portfolio of environmentally friendly, gas-insulated switchgear (GIS) to 24 kilovolts (kV) with a new fluorine gas-free NXPLUS C 24 medium-voltage switchgear. The use of Clean Air – a natural insulation medium – in combination with proven vacuum switching technology eliminates the need for any fluorine-based gas mixtures (F-gases), enabling climate-neutral energy distribution. The switchgear is equipped with digital features allowing for safe, reliable and cost-efficient operation.

Link to press release: [www.sie.ag/2AFcdGt](http://www.sie.ag/2AFcdGt)

Link to product website: [www.siemens.com/nxplusc24](http://www.siemens.com/nxplusc24)

## **8DJH 12 – blue GIS**

### **28 March 2019 | Siemens expands its portfolio for SF6-free medium-voltage switchgear**

At this year's Hannover Messe trade fair, Siemens will present the 8DJH 12, an additional medium voltage switchgear that uses "Clean Air" as the insulating medium. "Clean Air" is an insulating gas consisting only of the natural constituents of ambient air. The new gas-insulated load-break switchgear (ring main unit) thus combines the sustainability of the "blue GIS" portfolio with the benefits of the proven 8DJH product family. The switchgear is used in public and industrial power grids on the secondary distribution level.

The medium-voltage switchgear in the 8DJH family meet all requirements for safe and economical grid operation: compactness, maintenance-free design, and a high degree of operating and personal safety as well as availability. These benefits are also retained in the factory-assembled, type-tested, and 3-pole metal-enclosed 8DJH 12 model. The hermetically tight, welded switchgear vessel makes the high voltage components of the switchgear insensitive to ambient conditions and tight to the ingress of foreign objects.

Link to press release: <https://press.siemens.com/global/en/pressrelease/siemens-expands-its-portfolio-sf6-free-medium-voltage-switchgear>

Link to product website: <http://www.siemens.com/8djh12>

## **8DAB 12 – blue GIS**

### **19 April 2018 | 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.

Link to press release: <https://press.siemens.com/global/en/pressrelease/siemens-develops-sf6-free-gas-insulated-medium-voltage-switchgear>

Link to product website: <http://www.siemens.com/8dab12>

## Lookout

Siemens Smart Infrastructure is pushing ahead with active testing of fluorine gas-free products and their development and industrialization. For medium-voltage applications, Siemens supports the study initiated by the Fraunhofer Institute for Energy Economics and Energy System Technology (IEE) on SF<sub>6</sub>- and fluorine gas-free alternatives for medium-voltage gas-insulated switchgear in Europe. This research is focused on the environmental and socio-economic impact of SF<sub>6</sub> and analyzes the effects of fluorine gas-free solutions as an alternative.

Link to Fraunhofer IEE study: [www.f-gas-free.eu](http://www.f-gas-free.eu)

### Further information

- Q&As related to SF<sub>6</sub> from T&D Europe:  
<https://www.tdeurope.eu/component/attachments/attachments.html?id=747>
- Statement of the ZVEI regarding SF<sub>6</sub> within energy technology  
(German only): <https://www.zvei.org/verband/fachverbaende/fachverband-energietechnik/sf6-in-der-energietechnik/>

### Contact for journalists

Anna Korb

Phone: +49 9131 173 663 7; E-mail: [anna.korb@siemens.com](mailto:anna.korb@siemens.com)