SIEMENS

www.siemens.com/energy

NXPLUS C Wind up to 36 kV for wind farm applications

Gas-insulated medium-voltage switchgear

When it comes to medium-voltage power distribution, Siemens has developed a broad realm of products and solutions, based on experience, innovation, and reliability. Siemens has a proven track record for delivering gas-insulated medium-voltage switchgear (GIS) for wind farm applications. Offshore wind power in particular faces many challenges. Conditions during installation, operation, and maintenance may be harsh, and the product requirements are high. From one of the world's first offshore wind farms more than ten years ago to today's largest wind farms, our customers take full advantage of the gas-insulated switchgear technology – with a compact, climate-independent, and maintenance-free design.

Maximum reliability grown from experience

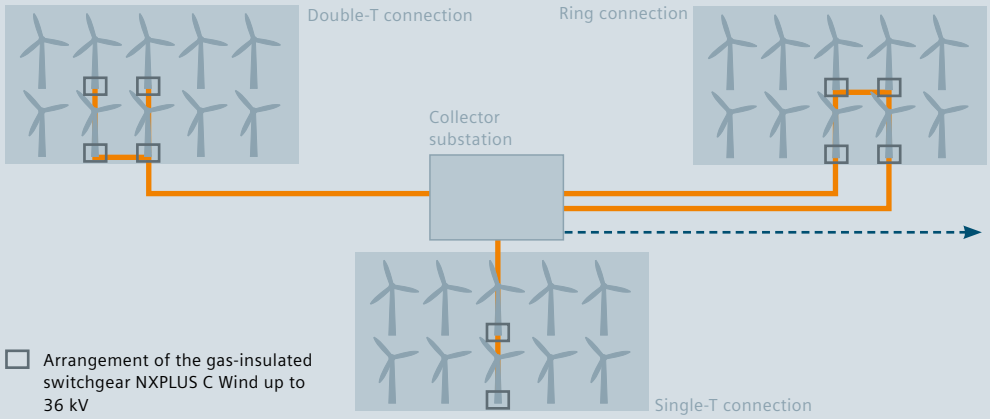
There is one thing operators just have to rely on: safe and reliable operation of the wind farm's power grid. Around the clock. Remote areas in offshore wind farms or wind turbines are often hard to access. In case of inclement weather conditions or rough seas, it can take up to several days to fix a fault on a wind turbine in an offshore wind farm. This is why switchgear for wind turbines must be particularly reliable. Gas-insulated switchgear from Siemens has been in operation in the first offshore wind parks for more than ten years, at the Middelgrunden, Horns Rev, Rødsand, and Arklow Bay wind farms, for example. Meanwhile, Siemens has delivered more than 10,000 switchgear panels for wind farm applications. NXPLUS C switchgear from Siemens is based on more than 25 years of experience with gas-insulated switchgear technology and the use of proven components.

Delivering on a promise:

- Innovative feed-in technology for wind power
- Compact footprint allows installation in the wind tower
- Maintenance-free equipment reduces costs
- Climate-independence leads to extended lifetime

Answers for energy.

Typical layout of wind farms



Arrangement of the gas-insulated switchgear NXPLUS C Wind up to 36 kV

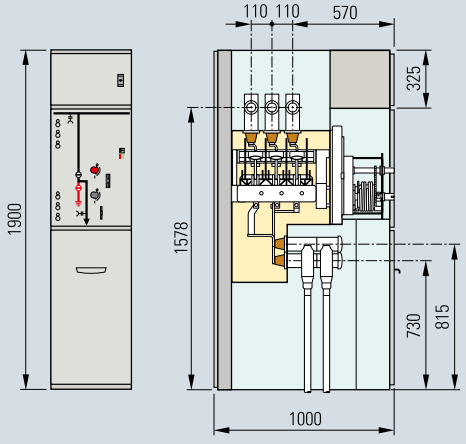
Delivering compactness for wind turbines
In most cases, the medium-voltage switchgear is installed in the tower base, where the space available is extremely limited. Therefore, it must be used as efficiently as possible in order to eliminate the need for an additional transformer substation next to the wind turbine. Even the narrow doorway of the tower limits the dimensions of the switchgear. However, the compact NXPLUS C Wind fits through. Thanks to its small dimensions and its expandability, the NXPLUS C Wind is suitable for all conceivable configurations to connect wind turbines to the wind farm network.

Superior technology for demanding tasks
During the operating time of wind turbines individual components must be inspected and maintained at regular intervals. This produces costs that can be essentially reduced by using maintenance-free components.

However, the NXPLUS C Wind is maintenance-free due to climate-independence. The switching devices are accommodated in a gas-filled switchgear vessel, which is hermetically sealed throughout the entire service life of the switchgear in accordance with the IEC standard 62271-200. The fixed-mounted NXPLUS C Wind is a factory-assembled, type-tested, and metal-enclosed single-busbar switchgear for indoor installations. NXPLUS C Wind covers the application range up to 36 kV, 630 A and 25 kA/ 1 s.

The product range features circuit breaker panel, disconnector panel and ring cable feeder with load-break switch. Depending on the operator's requirements, different configurations of NXPLUS C Wind allow the individual wind turbines to be safely connected to the wind farm's own power grid.

Ring cable feeder with load-break switch up to 36 kV



Technical data	NXPlus C Wind
Rated voltage (kV)	36
Rated short-circuit breaking current (kA)	20 / 3 s
Rated normal current of busbar (A)	630 or 1,000
Rated normal current of feeders (A)	630
Internal arc classification IAC A FLR	20 kA, 1 s

Siemens AG
Energy Sector
Freyeslebenstrasse 1
91058 Erlangen, Germany

Power Distribution Division
Medium Voltage
Dispo 30403, c4bs-Nr. 7474
Order No. E50001-G710-A407-X-4A00 | Printed in Germany |
fb 4020 BR 482467 WS 05110.5 |

www.siemens.com/energy