

## NALFWind™

New powerful switch-fuse combination developed specifically for the wind power industry

The worldwide demand for renewable energy is growing constantly, with wind power as one of the fastest growing sectors. To meet the current and future needs of network operators, manufacturers and designers of wind power systems need to be able to call on both advanced technologies and in-depth knowledge.

ABB has many years of experience in collaborating with the wind industry and is a leading global supplier of components, systems and services. Our range covers everything from customized power components through to the delivery of complete turnkey networks.

Now we have expanded our product portfolio with NALFWind™ – a 36kV switch-fuse combination developed for the competitive design of wind farms.



### NALFWind™- 36kV switch-fuse combination for wind power applications

The NALFWind is a high performance 36kV air insulated load break switch with integrated fast acting current limiting fuses. It now offers something that has not been previously possible in this type of air- insulated switch technology, since the extended breaking performance of load break switches in terms of the range of transfer current value and the superior time current characteristic of fuses enables the increased maximum output of the protected transformer. This provides a safe and also very cost effective solution for the wind industry.

The NALFWind is adapted to 36 kV – the voltage level which is now standard for both wind turbines and peripherals. NALFWind's high breaking capabilities make it possible to protect transformers up to 3000 kVA with CEF-S/CEF-S-TCU fast acting fuses. It is offered as the standard configuration with an earthing switch with 40 kA making capability. All this means that NALFWind creates completely new possibilities in many different applications.

### New type of fuse

The fuses used for NALFWind are a brand new design, based on the unique design principles of the superior fast acting ABB CEF-S/CEF-S-TCU, which secure and protect against faults in low-voltage switchgear. The CEF-S/CEF-S-TCU fuses rated 30/40,5 kV are specially designed to achieve the lowest possible breaking current value within 100 ms.

### Smart grids

This switch-fuse combination can be operated by a remote control system, via wireless GPRS/EDGE communication to the control center (SCADA). The REC 601 (603) wireless controller plus RER 601 (603) gateways offer, in addition to control and monitoring functionality, protection of actuator motors and also two way communication through the implementation of the IEC 60870-5-104 protocol.

The NALFWind is ideally suited to playing a key role in the major investments in smart grids, now taking place across many continents.

