

## UniGear Digital

# New ABB medium-voltage technology wins Amper Award

**ABB, a leading global supplier of power and automation technologies, has received a Golden Amper 2014 award for the most beneficial exhibit at the Amper International Trade Fair of Electrical Engineering, Electronics, Automation and Communication Technologies held in the Czech Republic in April 2014.**

The honor was given in recognition of ABB's UniGear Digital, an innovative solution combining well-proven air-insulated medium-voltage switchgear design with an advanced approach to protection, control, measurement and digital communication.

The UniGear Digital is an innovative solution in MV switchgear. It combines well-proven switchgear design with an innovative approach to protection, control, measurement and digital communication. The solution is based on an optimized integration of current and voltage sensors into MV switchgear combined with the latest protection and control devices and IEC 61850 communication.

UniGear Digital development was led by the ABB production facility in Brno. The Brno production plant is one of the world's largest manufacturers of MV switchgear and MV instrument transformers and sensors.

There is high customer interest in this new MV switchgear concept due to the benefits of the products: **reliability and safety** (less live parts, and insulating components, extended communication supervision, flexible towards grid disturbances), **simplicity and efficiency** (less variants with only one voltage and two current sensors needed, easier installation, commission and testing), **state-of-the-art communication systems** (based on the IEC 61850 communication protocol, ready for smart grid applications) and **lower environmental impact** (less energy consumption up to 250 MWh\*, no metering panel needed, savings up to 150 CO<sub>2</sub>\*).



The solution is embodied currently in the UniGear ZS1, an ABB MV air-insulated switchgear for primary substations, for ratings of up to 17.5 kV, 4,000 A and 50 kA. ABB plans to extend the digital concept to the entire 12 to 24 kV UniGear portfolio.

The Amper trade fair is one of the largest trade events for electrotechnics and electronics in Europe and this year attracted over 600 exhibitors from 20 countries and about 65,000 visitors. A competition for the most beneficial exhibit is held as part of the four-day fair. Winners are awarded a Golden Amper based on current trends and developments in the electrical engineering, electronics, automation and communication technologies. Other criteria included technical innovation, originality, safety and creativity, contribution of public research institute or university in the development of the exhibit, further service possibilities, spare parts, environmental parameters and general presentation of the product.

In the year 2014 the jury gave out five main Golden Amper awards and five honorable mentions in a competition among 37 exhibits from 33 exhibiting companies which is the most in Amper's 22 year history. This year's jury was composed of 10 experts from the Czech Technical University in Prague, the Technical University in Brno, the University of West Bohemia, the VŠB Technical University of Ostrava, the Institute of Economic Research SAS Bratislava and the Electro technical Testing Institute Prague.

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