

ZX Digital

The smarter GIS solution

Medium-voltage primary gas-insulated switchgear (GIS)



ABB's Digital solutions make our proven Gas Insulated Switchgear (GIS) smarter, safer and more efficient by making use of smart automation and control solutions which enable you to efficiently act and quickly react.

ZX Digital takes full advantage of new technologies such as temperature, environment humidity and gas pressure sensors, online condition monitoring and diagnostics provide a new way of working for the electric system.

The solution is available for the latest ZX family with wide coverage of rating:

- 12/24 kV PrimeGear ZX0
- 40.5 kV ZX0.2
- 12 kV ZX2

ABB's current and voltage sensors offer the future-oriented way of measuring primary current and voltage. Its linear characteristic and dynamic range outperform conventional instrument transformers. Relion® protection relays provide native IEC 61850 support, including GOOSE (Generic Object-Oriented Substation Event) and sample values on the process bus for a fast and reliable data/information exchange.

ABB's medium-voltage primary switchgear ZX series is well established around the world. The design is based on the fundamental principle of safety, reliability, modularity and scalability. With the increasing demand of digital transformation, the platform is evolving further with ZX Digital including latest digital technologies, communication and data.

The condition monitoring system allows secure access to condition and operation data. Data analysis on-site ensure optimal switchgear operation and minimized maintenance costs.

ZX Digital is ready for cloud connectivity offering further data analysis and predictive maintenance.

Customer Value

- More reliability and fewer faults that could cause service downtime
Through monitoring and diagnosis the real-time status of the temperature of cable connection continuous monitoring of temperature at cable connection, gas pressure of the primary switchgear, prevents potential risks and avoids unexpected power outages.
- Lower operation and maintenance costs
Achieve a leap forward from passive maintenance to active predictive maintenance, make operation and maintenance easier.
- Long life cycle of secondary switchgear
Through the self-inspection algorithm, the service life of secondary switchgear can be extended and guarantee customer's benefits.



Smart Automation & Control

Reduced
Total Cost of Ownership
(TOC) by 30%



Monitoring & Diagnostics



More Efficiency, more Sustainability

- Lower electrical losses
- Easy data access, local or remote



More Safety

- Low-energy signals on bus/sensor
- Lower probability of failures



Less planning efforts, 10% faster installation, 20% faster execution time

- No early CT clarification
- Less limitations on I/Os



More Flexibility

- No exchange of CTs/VTs
- Less secondary wiring changes



Optimized weight

- Up to 15% weight reduction



10% - 20% reduced footprint

- Enabled through current and voltage sensors

More Safety

- Low-energy signals on bus/sensor
- Lower probability of failures



Less failures and outages

- Supervised communication
- Early detection of failures through preventive maintenance



Lower operational cost

- Easy planning & change handling
- Less outage cost

