HITACHI ABB

HIGH VOLTAGE PRODUCTS | GAS-INSULATED SWITCHGEAR

EconiQ™ ELK-04, 145 kV

Eco-efficient modular solution for reliable energy supply

EconiQ ELK-04, 145 kV is the most robust SF_6-free gas-insulated switchgear (GIS). It combines a low carbon footprint, superior reliability and low lifecycle costs in a flexible product layout.

EconiQ ELK-04, 145 kV

EconiQ ELK-04, 145 kV is sustainable and eco-efficient product proven to significantly reduce the CO_2 equivalent (CO_2 eq) emissions during the complete lifecycle of the product, compared to the SF_6 solution.

EconiQ ELK-04, 145 kV is based on the well-known modular design of ELK-04 with the largest installed base of any sub-transmission GIS worldwide. It offers easy operation at high-performance ratings and broad flexibility for optimizing substation layouts.

It is the most robust and reliable eco-efficient GIS solution on the market to fulfil the rigorous high-voltage engineering requirements. It uses a proven gas-circuit breaker technology, which has been utilized for decades in the transmission systems.

EconiQ ELK-04, 145 kV is using a gas-mixture of Fluoronitriles (C4-FN), Carbon dioxide (CO_2) and Oxygen (O_2). This mixture essentially eliminates the CO_2 equivalent emissions of the insulation medium compared to SF_6 gas.

EconiQ is Hitachi ABB Power Grids' eco-efficient portfolio for sustainability where products, services and solutions are proven to deliver exceptional environmental performance.

Benefits of the eco-efficient technology

- Future proof to environmental regulations
- No risk of accidental leakage of SF_6
- Transparent environmental performance, thanks to the detailed product life cycle assessment

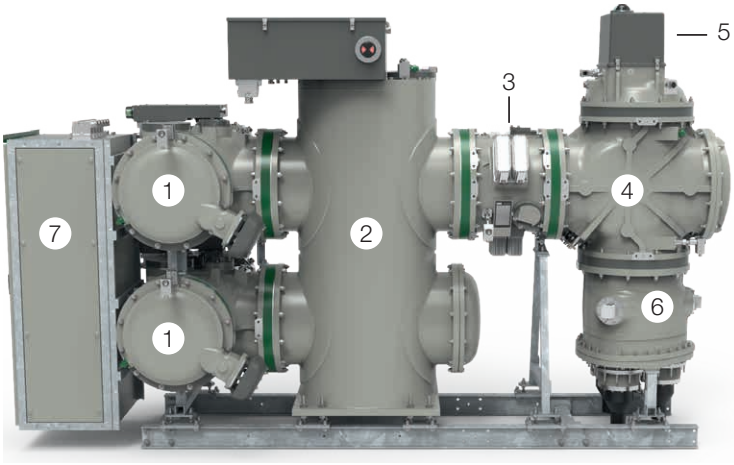
Ease of gas handling

- A standard eco-efficient insulation gas for high-voltage equipment will enable the industry to adopt a standardized eco-efficient gas approach from sub-transmission to ultrahigh voltage
- Standard service concept and use of common auxiliary equipment

Superior quality and robustness

- Most reliable eco-efficient GIS solution on the market
- Exceptional engineering design
- Using a well-proven gas circuit breaker technology
- Softer switching characteristic of gas circuit breakers with low stress to neighbouring quipment
- Based on the ELK-04 product family with the largest installed base of any sub-transmission GIS
- Earthquake resistant up to ground acceleration of 1g

EconiQ ELK-04, 145 kV double busbar bay



1. Disconnector and earthing switch (busbar)
2. Circuit-breaker
3. Low power instrument transformer
4. Disconnector and earthing switch (feeder)
5. Make-proof earthing switch
6. Cable exit
7. Local control cubicle (LCC)

Performance data - EconiQ ELK-04, 145 kV

Rated voltage	kV	145
Rated short-duration power-frequency withstand voltage	kV	275
Rated short-duration power-frequency withstand voltage across isolating distance	kV	315
Rated lightning impulse withstand voltage	kV	650
Rated lightning impulse withstand voltage across isolating distance	kV	750
Rated normal current	A	3150
Rated short-time withstand current	kA	40
Rated duration of short-circuit	s	3
Rated peak withstand current	kA	108
Rated operating sequence		O-CO

Product-ID: 1HGD008100M0052
The data are not limiting values. Additional data on request

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