

Gas-insulated switchgear ELK-04, 145 kV Modular system with 3150 A, 40 kA



ABB is the pioneer in gas-insulated switchgear (GIS) technology with over 50 years of proven technology. With a wide range of GIS products up to 1200 kV, ABB provides reliable and eco-efficient solutions for transmission, distribution grids, power plants and industries.

The ELK-04 is the ideal solution for reliable energy distribution up to a rated voltage of 145 kV, a rated normal current up to 3150 A and a rated short-circuit current up to 40 kA. Based on a few building blocks with standardized dimensions, its space saving and modular design offers a small footprint and easy operation at high performance ratings. All functional modules are type tested according to international standards (IEC/ANSI). The ELK-04 offers a high level of flexibility for optimizing substation layouts while reducing operating and maintenance costs.

The ELK-04, 145 kV provides:

- Complete three phase encapsulation
- Economic and compact layouts for ratings with 145 kV, 3150 A, 40 kA
- Three- and single-pole operation
- Resistance against earthquakes with high performance level of 1g
- Low environmental impact due to optimized design with reduced SF₆ gas
- Smart Grid Enabled control and protection
- Low life cycle and maintenance costs
- Ideal solutions for hydro power plants and offshore wind farms
- Container solutions with complete bays
- Reliable, well-proven technology based on five decades of experience

ELK-04, 145 kV**Product-ID****1HGD008100M0040**

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 frequency	Hz	50
Rated normal current	A	3150
Rated short-time withstand current	kA	40
Rated duration of short-circuit	s	3
Rated peak withstand current	kA	104
Installation		Indoor / Outdoor
Rated filling pressure / minimum functional pressure (abs. at 20 °C): Circuit-breaker	MPa	0.7 / 0.6
Rated filling pressure / minimum functional pressure (abs. at 20 °C): Other components	MPa	0.6 / 0.52
Rated operating sequence		O-CO / CO-CO / O-CO-CO

The above data are not limiting values. Additional data on request. We reserve the right to alter data and technical details without notice.

**Legend**

- 1 Disconnector and earthing switch (busbar)
- 2 Circuit-breaker
- 3 Current transformer
- 4 Disconnector and earthing switch (feeder)
- 5 Voltage transformer
- 6 Make-proof earthing switch
- 7 Cable exit
- 8 Local control cubicle (LCC)

ABB AG**High Voltage Products**

Brown-Boveri-Strasse 30

63457 Hanau-Grossauheim / Germany

Phone: +49 6181 5090

www.abb.com/highvoltage

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