Grid Solutions

GL 107X

Live Tank Circuit Breakers from 36 kV to 40.5 kV

Advanced Switchgear Technology

Live tank circuit breakers for outdoor installation are provided with third-generation self-blast chambers and spring-operated mechanisms. The field-proven interrupter chamber operates on the basis of the energy-optimized self-blast principle.

High Quality Components

- Third-generation self-blast interrupter chamber
- Operating linkages in one common gas enclosure forming part of the base frame
- Only one seal is dynamically stressed
- Insulator flanges sealed with Portland cement
- Pressure relief system for passive protection of both substation and personnel
- Compact design in line with considerations of current transformers
- Field-proven, temperature-compensated density monitor with two-stage transducer and three-color dial
- Easy access to the SF_6 filling connection (type DILO)
- Extruded aluminum base frame
- Reliable spring-operated mechanism with position indicator clearly visible from outside

Enhanced Installation and Maintenance

- Preset at factory before shipping - no adjustments necessary during installation and commissioning
- Pole units pre-filled with SF_6 at factory before shipping
- Circuit breaker completely assembled before delivery (pole columns, base frame and spring-operated mechanism)

Rigorous Testing

GE Vernova's live tank circuit breakers meet national and international requirement standards. This has been confirmed by comprehensive type tests according to the latest IEC, GOST and ANSI standards.

Reliable Performance

Live tank circuit breakers ensure a high level of reliability every day. Even under extreme conditions and climates or in highly active seismic areas customers can count on GE Vernova's live tank circuit breakers.

Superior Manufacturing

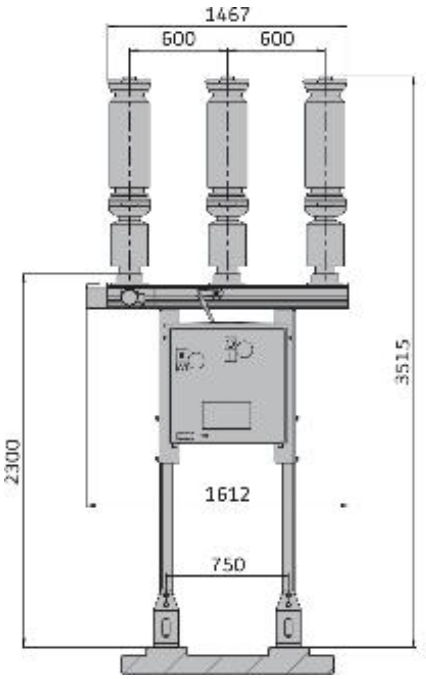
The entire development and production procedures are fully compliant with the latest ISO 9001, ISO 14001 and OHSAS 18001 quality standards. This ensures the high quality of our products and services and is confirmed by regular audits.

Key Benefits

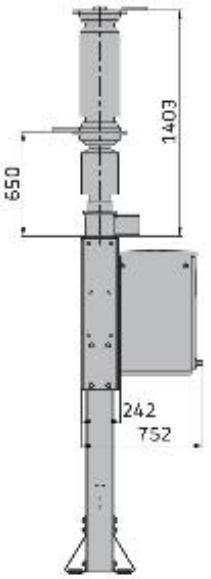
- High reliability due to field-proven components and rigorous testing
- Enhanced installation and commissioning thanks to complete assembly before delivery
- Long maintenance intervals

GE VERNOVA

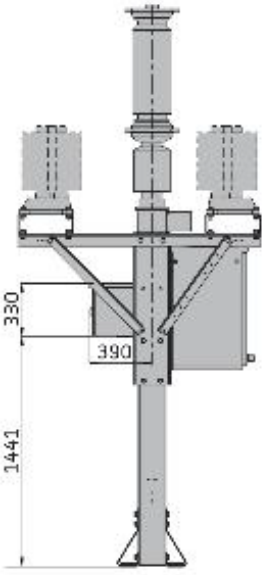
Dimensions



GL 107X F1/3120
(Dimensions in mm)



without current transformers



with current transformers on both sides

Ratings

Breaker Type	GL 107X F1/3120	GL 107X F1/3120	GL 107X F1/3120
Rated voltage	36 kV	38 kV	40.5 kV
Rated frequency	50 Hz	60 Hz	50 Hz
Rated normal current	up to 2,000 A	up to 2,000 A	up to 2,000 A
Rated short-circuit breaking current	up to 31.5 kA	up to 25 kA	up to 31.5 kA
Rated short-circuit making current	80 kA	65 kA	80 kA
Rated duration of short-circuit	3 s	3 s	3 s
Opening time	29 ms	29 ms	29 ms
Break time	50 ms	50 ms	50 ms
Closing time	58 ms	58 ms	58 ms
Average ambient temperature*	-30 °C up to +40 °C	-30 °C up to +40 °C	-30 °C up to +40 °C
Design altitude*	1,000 m.a.s.l.	1,000 m.a.s.l.	1,000 m.a.s.l.

** Standard values according to IEC. Temperatures up to +70 °C and higher design altitudes are available on request.*

Technical Characteristics

- **Spring-operated mechanism/degree of protection:**
  FK 3/IP 55
- **Rated operating sequence:**
  O-0.3s-CO-3min-CO resp. CO-15s-CO
- **Rated supply voltage:**
  from 24 V up to 250 V dc/ac

Product Options

- **Distance between pole centers 500 mm**
- **Current transformers mounted on base frame, or both sides and high voltage connections**
- **CBWatch3 monitoring sytem**

Gas Data*

The functioning of this equipment relies upon SF_6, a fluorinated greenhouse gas.

	SF_6
Average mass of gas/mixture in the equipment (kg)*	2.4
GWP_{100} of gas/mixture ($C0_2$-equivalent)	24,300
$C0_2$-eq of gas/mixture in the equipment ($t_{co2\text{-}eq}$) *	58.3

**For information purposes only. It varies depending on the equipment considered.*

For more information, visit
gevernova.com/grid-solutions

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English
250603

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