Grid Solutions

GL 308 AND GL 309

Live Tank Circuit Breakers for 52 kV and 72.5 kV

Advanced Switchgear Technology

Live tank circuit breakers for outdoor installation feature third-generation self-blast interrupter 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
- Pressure relief system for passive protection of substation and personnel
- Field-proven, temperature-compensated density monitor with two-stage transducer and three-color dial
- Easy access to the SF_6 filling connection (type DILO)
- SF_6 non-return (check) valve on each pole column
- Protected opening springs inside each pole column
- Hot-dip galvanized steel parts
- Mechanism housing made completely of aluminum
- 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
- Independent disassembly of the interrupter chamber without having to remove the entire pole column
- Circuit breaker completely pre-assembled before delivery
  - Three-pole operated breakers: pole columns mounted on base frame
  - Single-pole operated breakers: base frame with mounted and wired mechanisms

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 standards.

GE VERNOVA

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.

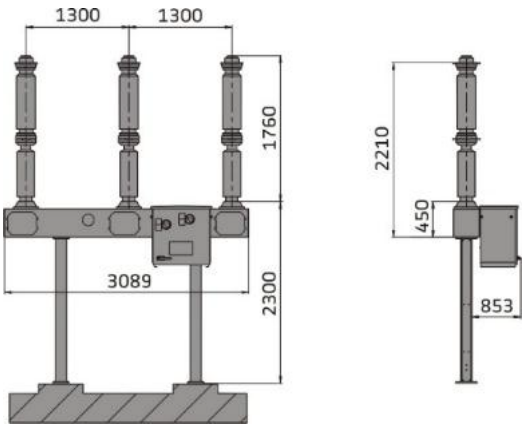
Superior Manufacturing

GE Vernova's 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.

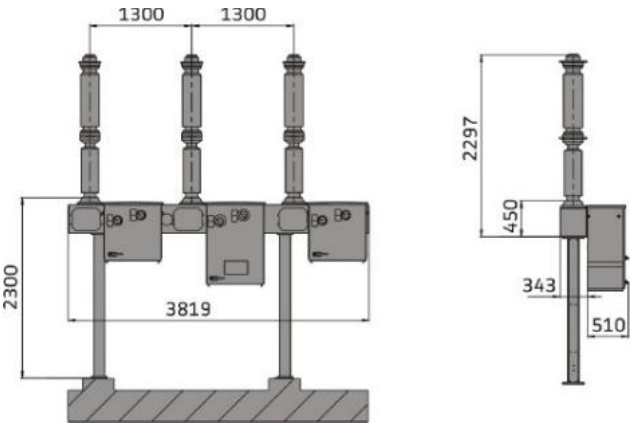
Key Benefits

- Reliable performace due to field-proven components and rigorous testing
- Enhanced installation and commissioning due to complete pre-assembly before delivery
- Long maintenance intervals

Dimensions



GL 309 F1/3120 (Dimensions in mm)



GL 309 F3/3120 (Dimensions in mm)

Ratings

BREAKER TYPE	GL 308 F1/3120 GL 308 F3/3120	GL 308 F1/3120 GL 308 F3/3120	GL 309 F1/3120 GL 309 F3/3120	GL 309 F1/3120 GL 309 F3/3120
Rated voltage	52 kV	52 kV	72.5 kV	72.5 kV
Rated frequency	50 Hz	60 Hz	50 Hz	60 Hz
Rated normal current	up to 2,000 A	up to 2,000 A	up to 2,000 A	up to 2,000 A
Rated short-curcuit breaking current	up to 31.5 kA	up to 25 kA	up to 31.5 kA	up to 25 kA
Rated short-curcuit making current	80 kA	65 kA	80 kA	65 kA
Rated duration of short-circuit	3 s	3 s	3 s	3 s
Opening time	38 ms	38 ms	38 ms	38 ms
Break time	50 ms	50 ms	50 ms	50 ms
Closing time	≤70 ms	≤70 ms	≤70 ms	≤70 ms
Average ambient temprature*	-30 °C up to +40 °C	-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.	1,000 m.a.s.l.

**Standard values according to IEC. Tempratures up to +70 ºC 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

- **More phase center distances available on request**
- **CBWatch3 monitoring system**
- **RPH3 controller (F3)**

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)*	3.6
GWP_{100} of gas/mixture (CO_2-equivalent)	24,300
CO_2-eq of gas/mixture in the equipment ($t_{co2\text{-}eq}$)*	86.8

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

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

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English
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