

GL 309

Live Tank Circuit Breakers for 72.5 kV

Down to -40 °C with pure SF₆

GE's 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 SF₆ filling connection (type DILO)
- SF₆ 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

- Pole units pre-filled with SF₆ at factory before shipping
- Independent disassembly of the interrupter chamber without having to remove the entire pole column
- Pole columns and base frame completely pre-assembled before delivery; no adjustments necessary during installation and commissioning

Rigorous Testing

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

Superior Manufacturing

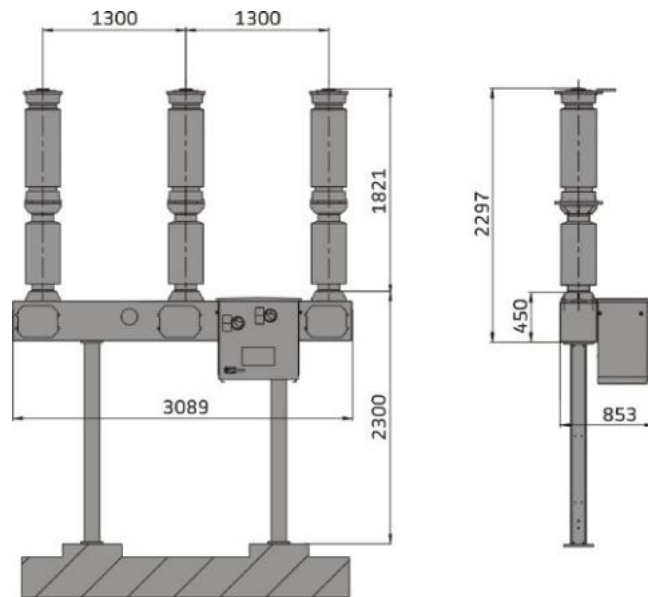
The entire development and production procedures are fully compliant with the latest ISO 9001, ISO 14001 and OHSAS 18001 quality standards. This ensures the high quality of our products and services and is confirmed by regular audits.

Key Benefits

- Temperatures down to -40 °C with pure SF₆
- Quick and easy installation and commissioning (completely pre-assembled before delivery)
- Long maintenance intervals



Dimensions (in mm)



Ratings

| Breaker Type | GL 309 F1/4031 P |
|--------------------------------------|---------------------|
| Rated voltage | 72.5 kV |
| Rated frequency | 50/60 Hz |
| Rated normal current | up to 3,150 A |
| Rated short-circuit breaking current | up to 40 kA |
| Rated short-circuit making current | 104 kA |
| Rated duration of short-circuit | 3 s |
| Opening time | 29 ms |
| Break time | 50 ms |
| Closing time | ≤70 ms |
| Average ambient temperature* | -30 °C up to +40 °C |
| Design altitude* | 1,000 m.a.s.l. |

* Standard values according to IEC. Temperatures down to -40 °C, 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

- **Composite insulators**
- **More phase center distances available on request**
- **CBWatch3 monitoring system**

For more information, please contact
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Imagination at work