

FKG2S

Generator Circuit Breaker for Power Plants from 50 to 150 MW*

Power plant owners are concerned with the availability and reliability of their plants. That is why it is crucial to rely on equipment capable of safely interrupting fault conditions while protecting connected equipment and reduce outage periods.

Higher Reliability

FKG Generator circuit breakers are equipped with a fully spring-operated mechanism for high reliability, maximum energy stability and low maintenance requirements. This model is also available without enclosure.

Keep an Eye on your Generator Circuit-Breaker

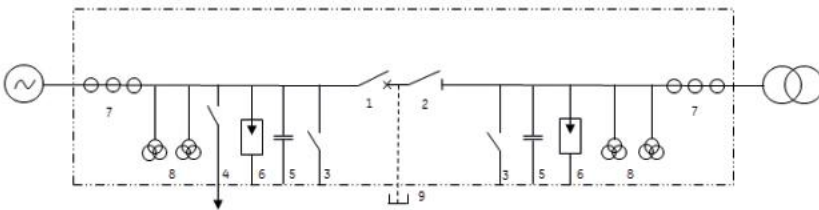
The FKG2S figures out optional add-on CBWatch monitoring system (automatic diagnosis) for maintenance on real status of the switchgear.

Higher Safety

A true electro-mechanical sequential interlocking system assures a reliable mechanical and electrical coordination for higher safety.

Components and Single Line Diagram

- | | |
|---------------------|---------------------------------|
| 1 - Circuit breaker | 6 - ZnO Surge arresters |
| 2 - Disconnecter | 7 - Current transformers |
| 3 - Earthing switch | 8 - Voltage transformers |
| 4 - Starting switch | 9 - Manual short-circuiting bar |
| 5 - Capacitors | |



Technical Data

- 6,800 A - 63 kA - 50 Hz
- 6,650 A - 63 kA - 60 Hz

Key Benefits

- Utmost reliability of the full spring mechanism
- CBWatch makes proactive maintenance possible
- Ideal for small & medium turbines or generators

Testing and Quality

- Product in full compliance with IEC/IEEE 62271-37-013 GCB standard
- Manufacturing ISO 9001 and ISO 14001 certified
- S.E.I. - S.N.E. and national packing procedures

* Depending upon the power station's specifications, GE may propose an alternative GCB power rating.

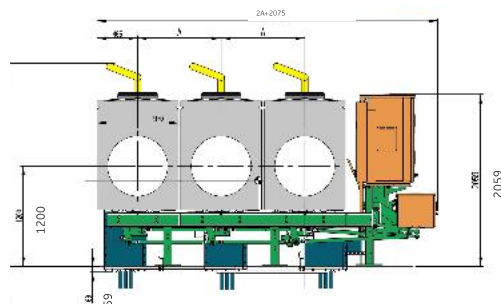
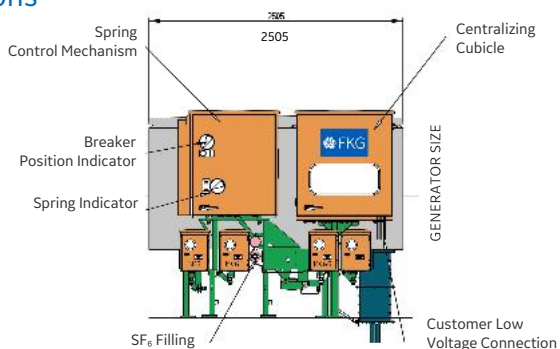
Technical Specifications

FKG2S

| | | | | | |
|--|-----|------------------|-------|----------|-------|
| Rated maximum voltage | kV | 24 | | | |
| Short-circuit breaking current | kA | 63 | | | |
| Rated out-of-phase breaking current | kA | 31.5 | | | |
| Rated breaking time | ms | 50 | | | |
| Rated closing time | ms | 115 | | | |
| Insulating gas | | SF ₆ | | | |
| Rated absolute pressure at 20°C | kPa | 850 | | | |
| Minimum absolute pressure at 20°C | kPa | 710 | | | |
| Location | | Indoor / Outdoor | | | |
| Breaker cooling type | | Natural | | | |
| Ambient air temperature limits | °C | -25°C/+40°C | | | |
| Busbar temperature limit/Enclosure temperature limit | °C | 90/70°C | | 105/80°C | |
| Frequency | Hz | 50 | 60 | 50 | 60 |
| Maximum rated normal current (natural cooling) | | | | | |
| - Indoor with ambient air 40°C | A | 6,800 | 6,650 | 6,200 | 6,050 |
| - Outdoor with ambient air 40°C | A | 6,600 | 6,450 | 6,000 | 5,850 |
| Phase spacing A with 100 mm step | mm | 1,000 to 1,500 | | | |
| Protection degrees (enclosure / cubicles) | | IP65 / IP55 | | | |
| SF ₆ monitoring by densimeter | | 3-phase | | | |
| Pressure reading | | Yes | | | |

| | | FKG2S | SKG2 Disconnecter | MKG2 Earthing switch | IKG2 Starting switch |
|---|---------|-------|----------------------|-------------------------|-------------------------|
| Rated peak withstand current | kA peak | 173 | 173 | 173 | 173 |
| Rated short time withstand current | kA | 63 | 63 | 63 | 63 |
| Rated duration of short-circuit | s | 3 | 3 | 3 | 1 |
| Rated insulation level (at sea level) - Phase to earth | | | | | |
| - Rated power frequency withstand voltage | kV | 60 | 60 | | 30 |
| - Rated lightning impulse withstand voltage: wave 1,2/50 μs | kVpeak | 125 | 125 | | 60 |
| Rated insulation level (at sea level) - Across terminals | | | | | |
| - Rated power frequency withstand voltage | kV | 60 | 70 | 60 | 60 |
| - Rated lightning impulse withstand voltage: wave 1,2/50 μs | kVpeak | 125 | 145 | 125 | 125 |

Dimensions



For more information please contact
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Imagination at work