



Grid Solutions
a GE and Alstom joint venture

CIRCUIT BREAKERS PRODUCT SOLUTIONS

FKG1N without enclosure

Generator circuit breaker for power plants from 150 to 300 MW

Specifically developed for the retrofit market, the FKG1N generator circuit breaker without enclosure is the ideal product for power plants up to 300 MW per unit.

Generator circuit breaker 10,800 A – 120 kA

The FKG1N without enclosure is suited with a fully spring-operated mechanism, which is well known for its high reliability and its low maintenance requirements. With different design possibilities (positioning of spring mechanism and high voltage terminal), the FKG1N generator circuit breaker from Grid Solutions is suitable for all your specific adaptations.

PRODUCT COMPONENTS

- 1 - Circuit breaker chamber
- 2 - Capacitors

TESTING & QUALITY

- Product in full compliance with IEEE/C37.013 and IEC standards
- Manufacturing ISO 9001 and ISO 14001 certified
- S.E.I. - S.N.E. and national packing procedures

OPTIONAL CBWATCH MONITORING SYSTEM

Add-on monitoring (automatic diagnosis) for maintenance on real status of the switchgear.



CUSTOMER BENEFITS

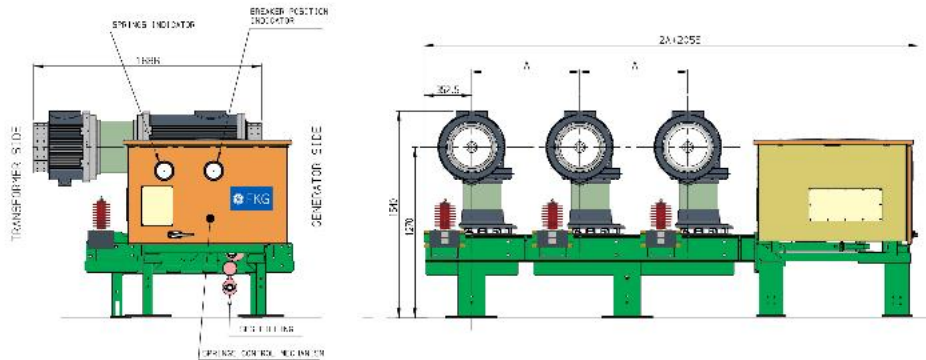
- Utmost reliability of the full spring mechanism: no leakage possible
- CBWatch makes proactive maintenance possible
- The FKG1N's flexibility and compactness make it ideal for retrofit projects



RATINGS

FKG1N WITHOUT ENCLOSURE

Rated maximum voltage	kV	27
Short-circuit breaking current	kA	up to 120
Rated out-of-phase breaking current	kA	60
Rated breaking time	ms	75
Rated closing time	ms	100
Insulating gas		SF ₆
Rated absolute pressure at 20°C	kPa	950
Minimum absolute pressure at 20°C	kPa	800
Location		Indoor / Outdoor (protected)
Ambient air temperature limits	°C	-20°C(-25°C)/+40°C
Frequency	Hz	50/60
Maximum rated normal current	A	10,800
Phase spacing A with 100 mm step	mm	700 to 2,000
Protection degrees (cubicles)		IP55
SF ₆ monitoring by densimeter		3-phase
Pressure reading		Yes
Rated peak withstand current	kA _{peak}	329
Rated short time withstand current	kA	120
Rated duration of short-circuit	s	3
Rated insulation level (at sea level) - Phase to earth		
- Rated power frequency withstand voltage	kV	80
- Rated lightning impulse withstand voltage: wave 1,2/50 μs	kV _{peak}	150
Rated insulation level (at sea level) - Across terminals		
- Rated power frequency withstand voltage	kV	80
- Rated lightning impulse withstand voltage: wave 1,2/50 μs	kV _{peak}	150



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