

Title (en)
Gas-insulated high-voltage circuit breaker

Title (de)
Gasisolierter Hochspannungsschutzschalter

Title (fr)
Disjoncteur haute tension isolé au gaz

Publication
EP 2816581 A1 20141224 (EN)

Application
EP 13172583 A 20130619

Priority
EP 13172583 A 20130619

Abstract (en)
The gas-insulated high-voltage circuit breaker comprises a heating volume (40) which during a breaking operation is connected with an arcing zone and which is provided for receiving pressurized arcing gases, a piston-cylinder arrangement with a movable (53) and a stationary part (54) which enclose a compression volume (51), a first flow duct (62) connecting the compression volume (51) with the heating volume (40) and an intermediate valve (60) for closing the first flow duct (62) when the gas pressure in the heating volume (40) is higher than the gas pressure in the compression volume (51). During a breaking operation a movable unit (27) executes a stroke along an axis (A) with respect to the stationary part (54) of the piston-cylinder arrangement (50) in the course of which a mechanically pressurized insulating gas is generated in the compression volume (51), a first (21) and a second arcing (31) contact disconnect at a first value of the stroke and the second arcing contact (31) travels a second flow duct (26) extended from the arcing zone through an insulating nozzle (23, 24) to an exhaust volume. In order to enable an increase of the pressure build-up in the heating volume (40) without increasing the energy for mechanically generating a pressure build-up in the compression volume (51) the circuit breaker further comprises a control device (70) for keeping the first flow duct (62) in the beginning of the breaking operation closed and for opening the first flow duct (62) when the stroke achieves a second value at a time in which the second arcing contact (31) starts to release the second flow duct (26).

IPC 8 full level
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CPC (source: EP)
H01H 33/901 (2013.01); **H01H 2033/906** (2013.01); **H01H 2033/908** (2013.01)

Citation (applicant)
• US 5898149 A 19990427 - BERGER ERNST [CH], et al
• DE 2944205 A1 19810514 - LICENTIA GMBH [DE]

Citation (search report)
• [YD] US 5898149 A 19990427 - BERGER ERNST [CH], et al
• [YD] DE 2944205 A1 19810514 - LICENTIA GMBH [DE]
• [A] EP 0175954 A2 19860402 - BBC BROWN BOVERI & CIE [CH]

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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