

Title (en)

GAS-INSULATED HIGH-VOLTAGE CIRCUIT BREAKER WITH A RELIEF DUCT WHICH IS CONTROLLED BY AN OVERFLOW VALVE

Title (de)

GASISOLIERTER HOCHSPANNUNGS-LEISTUNGSSCHALTER MIT EINEM VON EINEM ÜBERSTROMVENTIL GESTEUERTEN
ENTLASTUNGSKANAL

Title (fr)

DISJONCTEUR HAUTE TENSION ISOLÉ PAR GAZ ET DOTÉ D'UN CANAL DE DÉLESTAGE COMMANDÉ PAR UNE SOUPAPE DE
SURCOURANT

Publication

EP 2198443 B1 20110202 (DE)

Application

EP 07821371 A 20071016

Priority

EP 2007061005 W 20071016

Abstract (en)

[origin: WO2009049669A1] The gas-insulated high-voltage circuit breaker contains two arcing contacts (3, 4) which can move relative to one another along an axis (5), an insulating nozzle (6), a heating volume (7) for accommodating quenching gas (14), a heating duct (10) and an overpressure valve (30). In the case of this switch, the pressure of the quenching gas (13) is determined by the energy of a switching arc (8) which is formed when the switch is opened and generates arcing gas (14), and the heating duct (10) opens into the heating volume (7) in an axially oriented manner. At the same time, the heating duct (10) connects an arcing zone (9) which is bounded axially by the two arcing contacts (3, 4) and radially by the insulating nozzle (6), and the overpressure valve (30) limits the pressure of the quenching gas (14) by opening a relief duct (20) which opens into an expansion space (15). The aim of this switch is to limit the pressure of the arcing gases (13) in the arcing zone (9) when large currents are switched whilst improving the quality of the quenching gas (14) stored in the heating volume (7). This is achieved in that the relief duct (20) has an outflow section (21) which extends in the radial direction.

IPC 8 full level

H01H 33/74 (2006.01); **H01H 33/98** (2006.01)

CPC (source: EP US)

H01H 33/74 (2013.01 - EP US); **H01H 33/98** (2013.01 - EP US); **H01H 2033/908** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2009049669 A1 20090423; AT E497633 T1 20110215; CN 101828242 A 20100908; CN 101828242 B 20130313;
DE 502007006438 D1 20110317; EP 2198443 A1 20100623; EP 2198443 B1 20110202; US 2010219161 A1 20100902;
US 8148660 B2 20120403

DOCDB simple family (application)

EP 2007061005 W 20071016; AT 07821371 T 20071016; CN 200780101194 A 20071016; DE 502007006438 T 20071016;
EP 07821371 A 20071016; US 76117810 A 20100415