

Title (en)
Commutation type direct-current breaker

Title (de)
Gleichstromschalter

Title (fr)
Commutateur pour courant continu

Publication
EP 1102295 A3 20030514 (EN)

Application
EP 00123740 A 20001031

Priority
JP 32643999 A 19991117

Abstract (en)
[origin: EP1102295A2] A commutation type direct-current breaker (5) according to the present invention comprises a first main switch (51) and a second main switch (52) inserted in series into a direct-current circuit that connects a direct-current power supply (1) with a load (2); a commutating circuit connected in parallel with the first main switch (51) which includes a first auxiliary switch (53) operating in interlocked relation with the first main switch (51), a second auxiliary switch (54) operating in interlocked relation with the second main switch (52), a first capacitor (55), a second capacitor (56), and a reactor (57); a control unit (50) for controlling opening and closing operations of the two main switches (51,52); and an overcurrent tripping device (59). According to the above configuration, it is possible to prevent hazards caused by capacitor charging voltage by disconnecting the circuit on the load side from two capacitors having different capacitance values when the breaker is opened. Also, it is possible to reduce the number of systems to be supplied with an instruction for switch opening or closing to two. <IMAGE>

IPC 1-7
H01H 33/59

IPC 8 full level
H01H 33/59 (2006.01)

CPC (source: EP)
H01H 33/596 (2013.01)

Citation (search report)
• [Y] US 5452170 A 19950919 - OHDE SHINICHI [JP], et al
• [YD] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 10 31 October 1996 (1996-10-31)
• [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 02 29 February 1996 (1996-02-29)

Cited by
US7911303B2; WO2013045201A1; WO2015062644A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 1102295 A2 20010523; EP 1102295 A3 20030514; CN 1297239 A 20010530; JP 2001143581 A 20010525; JP 3674419 B2 20050720

DOCDB simple family (application)
EP 00123740 A 20001031; CN 00128548 A 20001117; JP 32643999 A 19991117