

Title (en)
Power switching apparatus

Title (de)
Stromschaltvorrichtung

Title (fr)
Appareil de commutation de puissance

Publication
EP 2736059 A1 20140528 (EN)

Application
EP 12275182 A 20121123

Priority
EP 12275182 A 20121123

Abstract (en)
There is a power switching apparatus (6) for switching a DC current. The power switching apparatus (6) comprises: a vacuum switch assembly (8) for switching a DC current; and a switching assembly (9) connected in parallel between a pair of terminals (7), each of the terminals (7) being connectable in use to an electrical circuit, wherein the vacuum switch assembly (8) includes at least one vacuum switch, the or each vacuum switch including: first and second electrically conductive rods connected at a first end to a respective one of the terminals and extending at a second end into a vacuum tight enclosure; a first electrode being mounted at or near the second end of the first rod; and a second electrode mounted at or near the second end of the second rod, the second electrode including at least one slot, the second ends of the rods extending into the vacuum tight enclosure such that the first and second electrodes define opposed electrodes, at least one of the rods being movable relative to the other to open or close a gap between the first and second electrodes, wherein the switching assembly (9) includes at least one pulsed power switch that conducts and carries current only in its closed state, the switching assembly (9) being controllable to switch between open and closed states to modify, in use of the power switching apparatus (6), a current flowing through the vacuum switch assembly (8), provided that the or each pulsed power switch is not a crossed-field plasma discharge switch.

IPC 8 full level
H01H 33/59 (2006.01); **H01H 33/664** (2006.01)

CPC (source: EP)
H01H 33/596 (2013.01); **H01H 33/6642** (2013.01)

Citation (applicant)
• K. H. SCHOENBACH: "A review of opening switch technology for inductive energy storage", PROCEEDINGS OF THE IEEE, vol. 72, no. 8, August 1984 (1984-08-01), pages 1019 - 1040, XP055098446, DOI: doi:10.1109/PROC.1984.12969
• K.H. SCHOENBACH; M. KRISTIANSEN: "Diffuse Discharges and Opening Switches - A Review of the Tamarrow Workshops", PROCEEDING OF 4TH IEEE PULSED POWER CONFERENCE, ALBUQUERQUE, NEW MEXICO, 1983, pages 26 - 32
• K. H. SCHOENBACH; M. KRISTIANSEN; G. SCHAEFER: "A review of opening switch technology for inductive energy storage", PROCEEDINGS OF THE IEEE, vol. 72, no. 8, August 1984 (1984-08-01), pages 1019 - 1040, XP055098446, DOI: doi:10.1109/PROC.1984.12969

Citation (search report)
• [Y] US 3252050 A 19660517 - LEE THOMAS H
• [Y] US 3475620 A 19691028 - MURRAY JOHN G, et al
• [Y] US 3210505 A 19651005 - PORTER JOSEPH W

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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