Title (en)

DC VOLTAGE CIRCUIT BREAKER

Title (de)

GLEICHSPANNUNGSLEISTUNGSSCHALTER

Title (fr)

DISJONCTEUR DE COURANT CONTINU

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2014086432A1] The invention relates to a device (15) for switching direct currents in a pole of a DC voltage network, comprising two connection terminals (2, 3), between which an operational current path (4) with a mechanical switch (8) extends, said current path being bridgeable by a switch-off branch (5) in which a power switching unit (9) is arranged. The power switching unit has a series circuit of two-polar sub-modules (12) with at least one power semiconductor switch (13), which can be switched on and off, and the device comprises commutation means for commutating the current from the operational current path (4) into the shut-off branch (5). The sub-modules (12) of the power switching unit (9) form a first and a second switching direction group (10, 11), each of which is designed to shut off currents in a unidirectional switching direction. The switching direction of the first switching direction group (10) is oriented opposite the switching direction of the second switching direction group (11). The aim of the invention is to produce such a device so as to be inexpensive. This is achieved in that the first switching direction group (10) is designed to switch off load and short-circuit currents, and the second switching direction group (11) is designed exclusively to switch off load currents; and protective means (16, 17, D1) are provided for protecting the second switching direction group (11) in the event of a short-circuit.

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