

Title (en)

CIRCUIT ARRANGEMENT FOR SURGE PROTECTION IN DC SUPPLY CIRCUITS

Title (de)

SCHALTUNGSANORDNUNG ZUM ÜBERSpannungSSCHUTZ IN GLEICHSTROM-VERSORGUNGSKREISEN

Title (fr)

CIRCUIT PERMETTANT UNE PROTECTION CONTRE DES SURTENSIONS DANS DES CIRCUITS D'ALIMENTATION EN COURANT CONTINU

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Application

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Abstract (en)

[origin: WO2014173613A1] The invention relates to a circuit arrangement for surge protection in DC supply circuits of electronic components or devices, in particular telecommunication devices such as transmitting and receiving antennas and/or mobile radio systems. The circuit consists of a coarse protection series circuit comprising spark gaps or gas discharge tubes between the input terminals and of capacitors connected in parallel to the spark gaps or gas discharge tubes. Furthermore, at least one fine protection element is provided between the output terminals, and a decoupling impedance is mounted between the coarse protection series circuit and the fine protection element. According to the invention, the capacitance values of the capacitors are multiple times greater than the capacitance values of the gas discharge tubes or spark gaps, the inductance of the decoupling impedance being chosen such that, in the event of a current rise, a sufficient voltage drop is produced to switch through the spark gaps or gas discharge tubes before the load limit of the fine protection element is reached.

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