

Title (en)

APPARATUS AND METHOD FOR SUPPLYING POWER TO A VOLTAGE- OR CURRENT-RELEASING SWITCHING DEVICE

Title (de)

VORRICHTUNG UND VERFAHREN ZUR SPANNUNGSVERSORGUNG EINES SPANNUNGS- ODER STROMAUSLÖSENDEN SCHALTGERÄTS

Title (fr)

DISPOSITIF ET PROCÉDÉ D'ALIMENTATION ÉLECTRIQUE D'UN COMMUTATEUR À DÉCLENCHEMENT DE TENSION OU D'INTENSITÉ

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2009043412A1] In order to be able to dispense with an expensive switched-mode power supply for supplying power primarily to a control unit of a voltage- or current-releasing switching device with a coil for operating the voltage or current release, the invention proposes an apparatus (1) for supplying power to the voltage- or current-releasing switching device with a first supply voltage (U1), the value of which is determined by a predefinable comparison value, a rectifier diode (11) and also a storage capacitor (12) for providing a DC voltage and a voltage regulation device (13) for providing at least one further supply voltage (U2), which apparatus is provided with a device (7) for pulse-width modulation for maintaining a pull-in current and/or a holding current of the coil (6) which operates the voltage or current release, and the coil (6) serves as an impedance of the apparatus (1) which acts as a power supply, wherein power is regulated without a measurement resistor. In a method for supplying power to a voltage- or current-releasing switching device of this type with at least one voltage or current release with at least one coil (6), wherein a first supply voltage (U1) is determined by comparison with a predefinable comparison value and at least one further supply voltage (U2) is set by a voltage regulation device (13), the coil (6) is used as an impedance of a power supply apparatus (1) which acts as a power supply and the current flowing through the coil (6) is used to build up the supply voltage of the switching device and is maintained over the range of the supply input voltage (U) by pulse-width modulation.

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