

Title (en)
CONTROL APPARATUS FOR A SWITCHING DEVICE WITH A PULL-IN COIL AND/OR A HOLDING COIL AND METHOD FOR CONTROLLING THE CURRENT FLOWING THROUGH THE COIL

Title (de)
STEUERUNGSVORRICHTUNG FÜR EIN SCHALTGERÄT MIT ANZUGS- UND/ODER HALTESPULE SOWIE VERFAHREN ZUM STEUERN DES DURCH DIE SPULE FLIESSENDEN STROMS

Title (fr)
DISPOSITIF DE COMMANDE POUR UN COMMUTATEUR COMPRENANT UNE BOBINE DE COLLAGE ET/OU DE MAINTIEN ET PROCÉDÉ DE COMMANDE DU COURANT QUI CIRCULE À TRAVERS LA BOBINE

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Abstract (en)
[origin: CA2693408A1] When driving a switching device with a pull-in coil and/or a holding coil (2), it is advantageous if the current through the coil (2) is approximately constant irrespective of the switching state, pulling-in or holding. In order to avoid current measurement which is complex in terms of circuitry and measurement technology or a complex control unit (8) with core value tables stored therein for the various switching states, the invention provides a control apparatus (1) for a switching device where the control apparatus (1) comprises a pulse-width-controlled switching apparatus (3) which is connected to the coil (2), and a control unit (4), which is connected to the switching apparatus (3) and generates a control signal with an adjustable pulse width, wherein the control unit (4) determines the pulse width of the control signal as a function of the input voltage signal (U) of the control unit (4) in such a way that the control apparatus (1) keeps the current through the pull-in coil and/or the holding coil (2) of the switching device approximately constant. Such a control apparatus is integrated in a switching device. In the method for controlling the current flowing through a pull-in coil and/or a holding coil (2) of the switching device, the input voltage (U) of the switching device is determined and a pulse-width-modulation signal for driving a switching apparatus is determined as a function of a predeterminable setpoint voltage value (USp,soll) of the coil voltage (USp), with the result that a switching apparatus (3) keeps the current through the pull-in coil and/or the holding coil (2) of the switching device approximately constant.

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