

Title (en)

ELECTROMAGNETIC RELAY WITH SHORTER SWITCHING TIME

Title (de)

ELEKTROMAGNETISCHES RELAIS MIT VERKÜRZTER SCHALTDAUER

Title (fr)

RELAIS ÉLECTROMAGNÉTIQUE AVEC UN TEMPS DE COMMUTATION RÉDUIT

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Application

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Abstract (en)

[origin: WO2013189517A1] The invention relates to a switching arrangement (20, 40) having an electromagnetic relay (21, 41) that comprises a relay coil (21a, 41a) and switching contacts (21c, 41c), with a voltage source (43) connected to the relay coil (21a, 41a) and with a control circuit (23, 44) that is configured to control the relay coil (21a, 41a) by means of a voltage provided by the voltage source (43). In order to design such a switching arrangement (20, 40) in such a manner that, with simple construction, it is possible to achieve a switching time that is as short as possible, according to the invention the control circuit (23, 44) is configured to apply to the relay coil (21a, 41a) an elevated switch-on voltage greater than the nominal voltage of the relay (21, 41) in order to switch on the relay (21, 41) and, during the process of switching on the relay (21, 41), to apply instead of the switch-on voltage a normal voltage provided by the voltage source (43) that is less than the switch-on voltage, wherein a coil current flowing through the relay coil (21a, 41a) is used to determine a switch-over time at which switch-over to the normal voltage occurs. The invention relates also to a corresponding method for controlling a relay (21, 41).

IPC 8 full level

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