

Title (en)

METHOD AND CONTROL DEVICE FOR SWITCHING A CONTACTOR

Title (de)

VERFAHREN UND STEUERUNGSVORRICHTUNG ZUM SCHALTEN EINES SCHÜTZES

Title (fr)

PROCÉDÉ ET DISPOSITIF DE COMMANDE POUR LA COMMUTATION D'UN CONTACTEUR

Publication

EP 3422382 A1 20190102 (EN)

Application

EP 17178249 A 20170628

Priority

EP 17178249 A 20170628

Abstract (en)

A method (30) for switching a contactor (1) is provided. The method (30) is performed by a control device (20) controlling a control voltage supplied to a coil (10) of the contactor (1), wherein the coil (10) is energized and de-energized to control the switching of the contactor (1). The method (30) comprises determining (31) a reference point of time, t1, based on a delay time, #T, wherein a starting point of the delay time #T is set in relation to a start-up of the method (30), estimating (32) a period, Tp, of the control voltage, determining (33) a duration of a measuring interval, Tm, based on the estimated period Tp of the control voltage, setting (34) starting point of a first measuring interval Tm based on the reference point of time t1, and setting starting points of subsequent measuring intervals equal to end point of an immediately preceding measuring interval, obtaining (35) measurements on the control voltage for the duration of the measuring interval Tm, and switching (36) the contactor (1) based on measurements made during the measuring interval Tm. A control device (20), computer program (23) and computer program product (22) are also provided.

IPC 8 full level

H01H 47/18 (2006.01); **H01H 9/56** (2006.01); **H01H 50/86** (2006.01)

CPC (source: EP)

H01H 9/56 (2013.01); **H01H 47/18** (2013.01); **H01H 50/86** (2013.01); **H01H 2009/566** (2013.01)

Citation (applicant)

WO 2013178255 A1 20131205 - ABB RESEARCH LTD [CH], et al

Citation (search report)

- [I] US 6671157 B1 20031230 - MEID WOLFGANG [DE], et al
- [A] WO 0101431 A1 20010104 - SIEMENS AG [DE], et al
- [A] US 2003174457 A1 20030918 - HERBST REINHARD [DE], et al
- [A] US 2015155115 A1 20150604 - JOHANSSON GUNNAR [SE], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3422382 A1 20190102; **EP 3422382 B1 20200325**; CN 110914949 A 20200324; CN 110914949 B 20210312; WO 2019001841 A1 20190103

DOCDB simple family (application)

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