

Title (en)

METHOD AND APPARATUS FOR THE CLOSED-LOOP CONTROL OF THE ACTUAL VALUE OF A CONTROLLED VARIABLE OF A SYSTEM, AND WORKING APPARATUS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM REGELN DES ISTWERTS EINER REGELGRÖßE EINES SYSTEMS UND ARBEITSVORRICHTUNG

Title (fr)

PROCÉDÉ ET APPAREIL POUR LA RÉGULATION EN BOUCLE FERMÉE DE LA VALEUR RÉELLE D'UNE VARIABLE RÉGULÉE D'UN SYSTÈME, ET APPAREIL DE TRAVAIL

Publication

EP 4029138 A1 20220720 (DE)

Application

EP 20749851 A 20200729

Priority

- DE 102019213977 A 20190913
- EP 2020071366 W 20200729

Abstract (en)

[origin: WO2021047818A1] The invention relates to a method and an apparatus for the closed-loop control of the actual value of a controlled variable (y) of a system (1), in which (I) a control error (e) of the actual value of a controlled variable (y) from a predefined setpoint value (w) is captured on the basis of a hysteresis-based closed-loop control unit (10) with a hysteresis element (11) and a setpoint value/actual value comparison (20), and (II) components to be compensated for in the control error (e) are superimposed and, in particular, added up (21) on the basis of at least one generalized integral closed-loop control unit (30) and in a path (52) which is connected upstream of the hysteresis-based closed-loop control unit (10) with the hysteresis element (11) and supplies the control error (e). The present invention also relates to a working apparatus having an assembly which is configured to carry out a working process in an open-loop or closed-loop controlled manner by operating the assembly and, for the closed-loop or open-loop control of the operation of the assembly, (a) has a closed-loop control apparatus configured according to the invention and/or (b) is configured to initiate or carry out a closed-loop control method according to the invention or to be used in such a method.

IPC 8 full level

H02M 7/00 (2006.01); **G05B 5/01** (2006.01); **H02M 1/12** (2006.01)

CPC (source: EP)

G05B 5/01 (2013.01); **H02M 1/12** (2013.01); **H02M 7/44** (2013.01); **G05B 2219/41121** (2013.01); **G05B 2219/42003** (2013.01); **H02M 1/0025** (2021.05)

Citation (search report)

See references of WO 2021047818A1

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)

WO 2021047818 A1 20210318; DE 102019213977 A1 20210318; EP 4029138 A1 20220720

DOCDB simple family (application)

EP 2020071366 W 20200729; DE 102019213977 A 20190913; EP 20749851 A 20200729