

Title (en)

METHOD AND CIRCUIT ARRANGEMENT FOR DETERMINING THE LOAD AND/OR UNBALANCE OF A LAUNDRY DRUM OF A WASHING MACHINE

Title (de)

VERFAHREN UND SCHALTUNGSANORDNUNG ZUM ERMITTELN DER BELADUNG UND/ODER DER UNWUCHT EINER WÄSCHETROMMEL EINER WASCHMASCHINE

Title (fr)

PROCÉDÉ ET CIRCUIT POUR DÉTERMINER LE CHARGEMENT ET/OU LE BALOURD D'UN TAMBOUR DE LAVE-LINGE

Publication

EP 2403986 A1 20120111 (DE)

Application

EP 10711608 A 20100218

Priority

- EP 2010052015 W 20100218
- DE 102009001271 A 20090302

Abstract (en)

[origin: WO2010100030A1] The invention relates to a method for obtaining information about the load and/or about the unbalance of a laundry drum of a washing machine, wherein the laundry drum is driven by an electric motor (9), the stator of which comprises at least one winding (W, V, U) that is coupled to a power inverter (8) controlled by a control unit (7). The laundry drum is accelerated to a predetermined rotational speed and is then slowed down. During the slowing down of the laundry drum, an electric current (I_w, I_v, I_u) flowing over the at least one winding (W, V, U) of the stator and/or an electric intermediate circuit voltage are measured. Furthermore, the curve of the electric power supplied by the electric motor during generator operation is evaluated for the duration of a revolution of the laundry drum. The unbalance and/or the load is concluded depending on the measured values for the current (I_w, I_v, I_u) and/or for the intermediate circuit voltage and depending on the evaluated power. The invention further relates to a corresponding circuit arrangement (1) and to a washing machine having a circuit arrangement (1).

IPC 8 full level

D06F 33/02 (2006.01); **D06F 37/20** (2006.01); **D06F 39/00** (2006.01)

CPC (source: EP US)

D06F 34/08 (2020.02 - EP US); **D06F 34/14** (2020.02 - EP US); **D06F 34/16** (2020.02 - EP US); **D06F 34/18** (2020.02 - EP US); **D06F 2103/04** (2020.02 - EP US); **D06F 2103/24** (2020.02 - EP US); **D06F 2103/26** (2020.02 - EP US); **D06F 2103/38** (2020.02 - EP US); **D06F 2103/46** (2020.02 - EP US); **D06F 2105/54** (2020.02 - EP US)

Citation (search report)

See references of WO 2010100030A1

Cited by

DE102013215675A1

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

DE 102009001271 A1 20100909; CN 102341538 A 20120201; CN 102341538 B 20140625; EA 019472 B1 20140331; EA 201171093 A1 20120330; EP 2403986 A1 20120111; EP 2403986 B1 20121121; US 20111314875 A1 20111229; US 9096964 B2 20150804; WO 2010100030 A1 20100910

DOCDB simple family (application)

DE 102009001271 A 20090302; CN 201080010229 A 20100218; EA 201171093 A 20100218; EP 10711608 A 20100218; EP 2010052015 W 20100218; US 201013254004 A 20100218