

Title (en)

STATOR FOR AN ELECTRIC MACHINE, AND ELECTRIC MACHINE FOR DRIVING A VEHICLE

Title (de)

STATOR FÜR EINE ELEKTRISCHE MASCHINE SOWIE ELEKTRISCHE MASCHINE ZUM ANTREIBEN EINES FAHRZEUGS

Title (fr)

STATOR POUR MACHINE ÉLECTRIQUE ET MACHINE ÉLECTRIQUE POUR ENTRAÎNER UN VÉHICULE

Publication

**EP 4264786 A1 20231025 (DE)**

Application

**EP 21835226 A 20211208**

Priority

- DE 102020216005 A 20201216
- EP 2021084852 W 20211208

Abstract (en)

[origin: WO2022128695A1] Disclosed is a stator (1) for an electric machine (51), wherein - the stator (1) includes a distributed stator winding (2) with a number N of phase windings, a number P of pole pairs, and a stator core (3) in which slots (A) are formed, the stator winding (2) being arranged in the slots (A); - the stator core (3) is subdivided into  $2 \cdot P \cdot N$  winding zones (8a-f) regularly following each other in the circumferential direction and includes a plurality of axial recesses (4a-l); - the recesses (4a-l) form at least one set (5a-c) of recesses (4a-d, 4e-f, 4i-l) which follow each other in the circumferential direction, and at least two recesses (4a-d, 4e-f, 4i-l) of the set (5a-c) are part of one of the winding zones (8a-f); - each pair of recesses (4a-d, 4e-h, 4i-l) that adjoin each other in the circumferential direction and are part of the same winding zone (8a-f) has a first angular distance (11a-c, 15a-c, 20a-c) from each other in the circumferential direction; - each pair of recesses (4a, 4d, 4e, 4h, 4i, 4l) which adjoin each other in the circumferential direction and are part of different winding zones (8a-f) has a second angular distance (11d, 15d, 20d) from each other in the circumferential direction; and - in at least one set (5a-c), the first angular distance (11a-c, 15a-c, 20a-c) and the second angular distance (11d, 15d, 20d) differ from one another such that the set (5a-c) is an irregular set.

IPC 8 full level

**H02K 1/16** (2006.01); **H02K 29/03** (2006.01)

CPC (source: EP US)

**H02K 1/165** (2013.01 - EP US); **H02K 3/12** (2013.01 - US); **H02K 3/28** (2013.01 - US); **H02K 29/03** (2013.01 - EP US); **H02K 2205/12** (2013.01 - US); **H02K 2213/03** (2013.01 - EP); **H02K 2213/09** (2013.01 - EP)

Citation (search report)

See references of WO 2022128695A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022128695 A1 20220623**; CN 116802967 A 20230922; DE 102020216005 A1 20220623; EP 4264786 A1 20231025; US 2024030759 A1 20240125

DOCDB simple family (application)

**EP 2021084852 W 20211208**; CN 202180092859 A 20211208; DE 102020216005 A 20201216; EP 21835226 A 20211208; US 202118257446 A 20211208