

Title (en)
ELECTRIC MACHINE

Title (de)
ELEKTRISCHE MASCHINE

Title (fr)
MACHINE ÉLECTRIQUE

Publication
EP 2936664 A2 20151028 (DE)

Application
EP 13819017 A 20131218

Priority
• DE 102012223701 A 20121219
• EP 2013077214 W 20131218

Abstract (en)
[origin: WO2014096085A2] The invention relates to an electric machine (10) comprising a rotor (20) which has a rotational axis (66), said rotor (20) having an electromagnetically excitable path (75) with an axial end face (69), on which a fan (30) with fan blades (72) is located and is non-rotatably connected to the rotor (20). The electromagnetically excitable path (75) has a pole shank (78) with an axially rotational pole shank length (L78), a respective pole plate (22, 23) adjoining each axially rotational end (80, 82) of said shank. Claw poles (24) having a north polarity extend from one pole plate (22) and claw poles (25) having a south polarity extend from the other pole plate (23), said claw poles (24, 25) alternating between north and south polarities around the periphery of the rotor (20). The machine also comprises a stator (16) that has a stator core (17), said core having a substantially cylindrical opening (60) with a central axis (63) and the opening (60) accommodating the rotor (20). The stator core (17) has an axial length (L17a) and said core (17) holds a stator winding (18) which is accommodated in grooves (96) that open radially inwards, each groove (96) being delimited in both peripheral directions by a respective tooth (103). The teeth (103) have a minimum tooth width (B103) in the peripheral direction and a tooth height (H103) in the radial direction, and the ratio of the tooth height (H103) to a minimum tooth width (B103) ranges between 0.45 and 1.02.

IPC 8 full level
H02K 21/04 (2006.01)

CPC (source: EP)
H02K 21/044 (2013.01); **H02K 2213/03** (2013.01)

Citation (search report)
See references of WO 2014096085A2

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)
DE 102012223701 A1 20140626; BR 112015014604 A2 20170711; BR 112015014604 A8 20180814; CN 104969458 A 20151007; CN 104969458 B 20180601; EP 2936664 A2 20151028; WO 2014096085 A2 20140626; WO 2014096085 A3 20150319

DOCDB simple family (application)
DE 102012223701 A 20121219; BR 112015014604 A 20131218; CN 201380072234 A 20131218; EP 13819017 A 20131218; EP 2013077214 W 20131218