

Title (en)
ELECTRICAL MACHINE WITH DIRECT STATOR COOLING

Title (de)
ELEKTRISCHE MASCHINE MIT STÄNDERDIREKTKÜHLUNG

Title (fr)
MACHINE ÉLECTRIQUE AVEC REFROIDISSEMENT DIRECT DU STATOR

Publication
EP 2939331 A2 20151104 (DE)

Application
EP 14706486 A 20140117

Priority

- DE 102013201778 A 20130204
- EP 2014050893 W 20140117

Abstract (en)
[origin: CA2899980A1] Electrical machine with direct stator cooling. The invention relates to an electromechanical transformer (1) with at least one rotor (4) which is arranged on a shaft (2) and is arranged in an encapsulated (30) stator (6), the laminated core (8) and winding (10) of which are surrounded by an insulating cooling fluid (12), wherein the cooling fluid (12) can be introduced via first cooling ducts (14) which are arranged radially with respect to the shaft (2) in the centre of the stator and can be discharged at each axial end of the stator (6) radially with respect to the shaft (2) via second cooling ducts (16) in the winding head region, or vice versa. As a result it is possible to provide a compact and robust electromechanical transformer 1 which owing to its lightweight design with a high torque density is suitable for use, for example, in aircraft or other vehicles.

IPC 8 full level
H02K 7/08 (2006.01); **H02K 9/197** (2006.01); **H02K 16/02** (2006.01)

CPC (source: EP US)
H02K 1/32 (2013.01 - EP US); **H02K 7/08** (2013.01 - EP US); **H02K 9/19** (2013.01 - EP US); **H02K 9/197** (2013.01 - EP US); **H02K 16/02** (2013.01 - EP US); **H02K 3/24** (2013.01 - EP US)

Citation (search report)
See references of WO 2014118020A2

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 102013201778 A1 20140807; BR 112015018340 A2 20170718; CA 2899980 A1 20140807; CN 104969453 A 20151007; EP 2939331 A2 20151104; US 2015372568 A1 20151224; WO 2014118020 A2 20140807; WO 2014118020 A3 20150618

DOCDB simple family (application)
DE 102013201778 A 20130204; BR 112015018340 A 20140117; CA 2899980 A 20140117; CN 201480007212 A 20140117; EP 14706486 A 20140117; EP 2014050893 W 20140117; US 201414765500 A 20140117