

Title (en)
AXIAL FLUX MACHINE FOR AN ELECTRICAL PROCESSING DEVICE AND ELECTRICAL PROCESSING DEVICE WITH AN AXIAL FLUX MACHINE

Title (de)
AXIALFLUSSMASCHINE FÜR EIN ELEKTRISCHES BEARBEITUNGSGERÄT SOWIE ELEKTRISCHES BEARBEITUNGSGERÄT MIT EINER AXIALFLUSSMASCHINE

Title (fr)
MACHINE À FLUX AXIAL POUR UN DISPOSITIF DE TRAITEMENT ÉLECTRIQUE ET DISPOSITIF DE TRAITEMENT ÉLECTRIQUE DOTÉ D'UNE MACHINE À FLUX AXIAL

Publication
EP 4052360 A1 20220907 (DE)

Application
EP 20796555 A 20201021

Priority
• DE 102019216853 A 20191031
• EP 2020079628 W 20201021

Abstract (en)
[origin: WO2021083764A1] The invention relates to an axial flux machine (10), in particular a single-sided axial flux motor, for an electrical machining device (34), having a machine shaft (12), in particular a motor shaft, a disc-shaped stator (20) and a disc-shaped rotor (14) which is arranged adjacent to the stator (20) in the axial direction (A) of the machine shaft (12), wherein the stator (20) is formed as a winding carrier (22) with a plurality of stator teeth (44) for at least one stator winding (24) and the rotor (14), which is connected to the machine shaft (12) in a rotationally fixed manner, can be set in a rotational movement relative to the stator (20). According to the invention, the rotor (14) of the axial flux machine (10) has a rotor yoke (62) which is designed as a bidirectional fan (64) or which is permanently connected, in particular bonded, to a bidirectional fan (40) by a joining process, the bidirectional fan (40) having at least one radial (66) and one axial air flow direction (68) for cooling the axial flux machine (10), in particular for cooling the stator (20) and the rotor (14). The invention also relates to an electrical processing device (34) with an axial flux machine (10).

IPC 8 full level
H02K 9/06 (2006.01); **H02K 1/20** (2006.01); **H02K 1/32** (2006.01)

CPC (source: CN EP US)
H02K 1/20 (2013.01 - CN US); **H02K 1/2793** (2013.01 - US); **H02K 1/32** (2013.01 - CN US); **H02K 5/207** (2021.01 - US); **H02K 9/06** (2013.01 - CN EP US); **H02K 21/24** (2013.01 - US); **H02K 1/20** (2013.01 - EP); **H02K 1/32** (2013.01 - EP)

Citation (search report)
See references of WO 2021083764A1

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 102019216853 A1 20210506; CN 114600348 A 20220607; EP 4052360 A1 20220907; US 2022416622 A1 20221229; WO 2021083764 A1 20210506

DOCDB simple family (application)
DE 102019216853 A 20191031; CN 202080075412 A 20201021; EP 2020079628 W 20201021; EP 20796555 A 20201021; US 202017755074 A 20201021