

Title (en)

CENTRIFUGAL PUMP ASSEMBLIES HAVING AN AXIAL FLUX ELECTRIC MOTOR AND METHODS OF ASSEMBLY THEREOF

Title (de)

KREISELPUMPENANORDNUNGEN MIT AXIALFLUSSELEKTROMOTOR UND VERFAHREN ZUR MONTAGE DAVON

Title (fr)

ENSEMBLES POMPES CENTRIFUGES DOTÉS DE MOTEUR ÉLECTRIQUE À FLUX AXIAL ET LEURS PROCÉDÉS D'ASSEMBLAGE

Publication

**EP 3574217 A4 20201125 (EN)**

Application

**EP 18744140 A 20180126**

Priority

- US 201715418103 A 20170127
- US 201715418146 A 20170127
- US 2018015446 W 20180126

Abstract (en)

[origin: WO2018140724A1] An electric motor assembly for pumping a fluid through a fluid cavity includes a stator assembly including a plurality of conduction coils configured to transmit heat energy to the fluid within the fluid cavity and a rotor assembly positioned adjacent the stator assembly to define an axial gap therebetween. The stator assembly is configured to impart a first axial force on the rotor assembly. The electric motor assembly also includes an impeller directly coupled to the rotor assembly opposite the stator assembly such that the rotor assembly and the impeller are configured to rotate about an axis. A fluid channeled by the impeller imparts a second axial force on the impeller. The rotor assembly and the impeller are configured to be submerged in the fluid within the fluid cavity.

IPC 8 full level

**F04D 1/04** (2006.01); **F04B 17/04** (2006.01); **F04D 13/06** (2006.01); **F04D 13/08** (2006.01); **F04D 29/04** (2006.01); **F04D 29/041** (2006.01);  
**F04D 29/042** (2006.01); **F04D 29/047** (2006.01); **F04D 29/048** (2006.01)

CPC (source: EP)

**F04D 13/0666** (2013.01); **F04D 29/041** (2013.01); **F04D 29/047** (2013.01); **F04D 29/2222** (2013.01)

Citation (search report)

- [X] WO 0037804 A1 20000629 - JEUMONT IND [FR], et al
- [XI] US 4806080 A 19890221 - MIZOBUCHI SHOTARO [JP], et al
- See references of WO 2018140724A1

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

DOCDB simple family (publication)

**WO 2018140724 A1 20180802**; AU 2018213369 A1 20190815; CN 110462218 A 20191115; CN 110462218 B 20210910;  
EP 3574217 A1 20191204; EP 3574217 A4 20201125

DOCDB simple family (application)

**US 2018015446 W 20180126**; AU 2018213369 A 20180126; CN 201880021409 A 20180126; EP 18744140 A 20180126