

Title (en)

COOLING MODULE FOR AN ELECTRIC MOTOR VEHICLE, COMPRISING A TANGENTIAL-FLOW TURBOMACHINE

Title (de)

KÜHLMODUL FÜR EIN ELEKTROFAHRZEUG MIT EINER STRÖMUNGSMASCHINE

Title (fr)

MODULE DE REFROIDISSEMENT POUR VEHICULE AUTOMOBILE ELECTRIQUE A TURBOMACHINE TANGENTIELLE

Publication

EP 3938633 A1 20220119 (FR)

Application

EP 20726180 A 20200312

Priority

- FR 1902672 A 20190315
- FR 2020050509 W 20200312

Abstract (en)

[origin: WO2020188188A1] The invention relates to a cooling module (22) for a motor vehicle (10) with an electric motor (12), comprising: - at least one heat exchanger (301 - 304); - at least one tangential-flow turbomachine (28) capable of creating an air flow that comes into contact with the plurality of heat exchangers (301 - 304); - a plurality of flaps (36P, 36A) movable between a first position, referred to as the position opening the cooling module (22), and a second position, referred to as the position closing the cooling module (22), said plurality of flaps (36P, 36A) occupying a portion of the cooling module not occupied by said at least one tangential-flow turbomachine (28).

IPC 8 full level

F01P 5/02 (2006.01); **B60K 1/00** (2006.01); **B60K 11/04** (2006.01); **B60K 11/08** (2006.01); **B60L 58/26** (2019.01); **F01P 3/18** (2006.01); **F01P 5/06** (2006.01); **F01P 7/10** (2006.01); **F01P 11/10** (2006.01); **F04D 17/04** (2006.01); **F04F 5/16** (2006.01)

CPC (source: EP US)

B60K 11/04 (2013.01 - EP US); **B60K 11/085** (2013.01 - US); **B60L 1/003** (2013.01 - EP); **B60L 1/02** (2013.01 - EP); **F01P 5/02** (2013.01 - EP); **F01P 5/06** (2013.01 - EP); **F01P 7/10** (2013.01 - EP); **F01P 11/10** (2013.01 - EP); **F04D 17/04** (2013.01 - EP); **F04D 29/4206** (2013.01 - EP); **B60K 2001/006** (2013.01 - US); **B60L 2240/36** (2013.01 - EP); **Y02T 10/70** (2013.01 - EP)

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)

FR 3093760 A1 20200918; **FR 3093760 B1 20210402**; CN 113597504 A 20211102; EP 3938633 A1 20220119; US 12024009 B2 20240702; US 2022153128 A1 20220519; WO 2020188188 A1 20200924

DOCDB simple family (application)

FR 1902672 A 20190315; CN 202080021122 A 20200312; EP 20726180 A 20200312; FR 2020050509 W 20200312; US 202017439193 A 20200312