

Title (en)
COOLING MODULE HAVING A SACRIFICIAL REGION FOR AN ELECTRIC MOTOR VEHICLE

Title (de)
KÜHLMODUL MIT EINEM OPFERBEREICH FÜR EIN ELEKTROMOTORFAHRZEUG

Title (fr)
MODULE DE REFROIDISSEMENT A ZONE SACRIFICIELLE POUR VEHICULE AUTOMOBILE ELECTRIQUE

Publication
EP 3938634 A1 20220119 (FR)

Application
EP 20726181 A 20200312

Priority
• FR 1902675 A 20190315
• FR 2020050511 W 20200312

Abstract (en)
[origin: WO2020188190A1] A cooling module (22) for a motor vehicle (10) with an electric motor (12) comprises a housing (24) defining a longitudinal channel opening at two ends (24a; 24b) of the housing (24), at least one heat exchanger (301-304) arranged in the channel, and at least one tangential-flow turbomachine (28) capable of creating an air flow in the channel. The housing (24) has a sacrificial region (40) intended to be deformed and/or to break preferentially in the event of an impact, the sacrificial region preferably being located in the vicinity of an end (24a; 24b) of the housing (24).

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); **F01P 3/18** (2013.01 - EP); **F01P 5/06** (2013.01 - EP); **F01P 11/10** (2013.01 - EP); **B60Y 2306/01** (2013.01 - EP); **F01P 2003/187** (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 3093763 A1 20200918; **FR 3093763 B1 20210402**; CN 113574258 A 20211029; EP 3938634 A1 20220119; US 12011987 B2 20240618; US 2022153127 A1 20220519; WO 2020188190 A1 20200924

DOCDB simple family (application)
FR 1902675 A 20190315; CN 202080021127 A 20200312; EP 20726181 A 20200312; FR 2020050511 W 20200312; US 202017439183 A 20200312