

Title (en)  
ROTARY ELECTRIC MACHINE WITH IMPROVED STATOR COOLING

Title (de)  
ELEKTRISCHE DREHMASCHINE MIT VERBESSERTER STATORKÜHLUNG

Title (fr)  
MACHINE ÉLECTRIQUE TOURNANTE AYANT UN REFROIDISSEMENT DU STATOR AMÉLIORÉ

Publication  
**EP 3931942 A1 20220105 (FR)**

Application  
**EP 20713725 A 20200225**

Priority  
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• FR 2020050362 W 20200225

Abstract (en)  
[origin: WO2020174180A1] The rotary electric machine (1) comprises a casing (10), a stator (40) comprising a stator body (41) secured within the casing and comprising first (411) and second (412) longitudinal end faces, notches (44) arranged and extending longitudinally within the stator body between the first and second longitudinal end faces, a coil passing longitudinally through the stator body through the notches and comprising first (43) and second (42) coil head assemblies extending in projection from at least one of the first and second longitudinal end faces of the stator body, a first chamber (15) in the shape of ring portion arranged around the first coil head assembly and a second chamber (14) in the shape of a ring portion arranged around the second coil head assembly, the first and second chambers being in fluid communication with one another by the notches, one among the first and second chambers being a coolant inlet chamber and the other among the first and second chambers being a coolant discharge chamber such that a flow of coolant between the first and second annular chambers is forced into the notches while the rotary electric machine is in operation.

IPC 8 full level  
**H02K 1/20** (2006.01); **H02K 3/24** (2006.01); **H02K 9/19** (2006.01); **H02K 9/197** (2006.01)

CPC (source: EP US)  
**H02K 3/24** (2013.01 - EP US); **H02K 9/19** (2013.01 - EP US); **H02K 9/197** (2013.01 - EP)

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