

Title (en)
STATOR COMPONENT OF AN ELECTRODYNAMIC MACHINE

Title (de)
STATOR-BAUTEIL EINER ELEKTRODYNAMISCHEN MASCHINE

Title (fr)
ÉLÉMENT STATOR D'UNE MACHINE ÉLECTRODYNAMIQUE

Publication
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Application
EP 21810588 A 20211111

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Abstract (en)
[origin: WO2022112009A2] The invention relates to a stator component (4') of an electrodynamic machine, comprising a plastic structure (13'); a stator unit (8') which is at least partly integrated into the plastic structure and has coil windings; an electronic controller; and multiple metal conductor elements (12'), via which the coil windings are connected to the electronic controller, a part of the extension of said conductor elements being integrated into the plastic structure (13'). The plastic structure (13') is produced from a thermoplastic by means of an injection molding process, namely the plastic structure is injected onto a preassembled group consisting of the stator unit (8') and the conductor elements (12') connected to the coil windings thereof. The plastic structure (13') forms a respective collar (28) adjacently to each conductor element (12') free end section (19') which projects from the plastic structure and is paired with the contact of the electronic controller, said collar completely surrounding the circumference of the conductor element and protruding beyond the rest of the plastic structure. The seal between the plastic structure (13') and the conductor elements (12') is produced solely by bringing the thermoplastic of the plastic structure (13') into contact with the respective conductor element (12') without using a special seal material. The sections of the conductor elements (12') passing through each collar (28) are equipped with a fine structure running over the circumference of the conductor elements in the form of grooves which are introduced into the surface by means of a laser engraving method and which are filled with thermoplastic ribs of the plastic structure (13').

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