

Title (en)

ELECTRICAL MACHINE WITH ELECTRIC MOTOR AND MAGNETIC GEAR

Title (de)

ELEKTRISCHE MASCHINE MIT ELEKTROMOTOR UND MAGNETGETRIEBE

Title (fr)

MACHINE ÉLECTRIQUE AVEC MOTEUR ÉLECTRIQUE ET TRANSMISSION MAGNÉTIQUE

Publication

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Application

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Abstract (en)

[origin: WO2019204848A1] The invention relates to an electrical machine, in particular an electric drive unit comprising an electric motor and a magnetic gear. In accordance with one embodiment the electrical machine has the following: a housing, a first shaft arranged in the housing, by means of which first shaft a first permanent magnet assembly and a second permanent magnet assembly are rigidly connected, and a stator arranged internally on the housing, which stator together with the first shaft forms the electric motor. The electrical machine also has a tubular machine element with a plurality of ferromagnetic pole shoes, into which the first shaft is at least partially inserted, such that the first shaft is situated coaxially with the tubular machine element and the second permanent magnet assembly is situated within the tubular machine element. The first shaft is mounted at a first end on the tubular machine element by means of a first bearing inside the tubular machine element. An annular third permanent magnet assembly is arranged around the tubular machine element so that the second permanent magnet assembly, the tubular machine element and the third permanent magnet assembly form the magnet gear. Either the tubular machine element is mounted rotatably on the housing and the annular third permanent magnet assembly is rigidly connected to the housing, or the tubular machine element is rigidly connected to the housing and the annular third permanent magnet assembly is mounted rotatably on the housing.

IPC 8 full level

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