

Title (en)

METHOD FOR CONNECTING AN ELECTRIC ASYNCHRONOUS MACHINE OF A POWERTRAIN TO AN ELECTRIC GRID

Title (de)

VERFAHREN ZUM VERBINDEN EINER ELEKTRISCHEN ASYNCHRONMASCHINE EINES TRIEBSTRANGES MIT EINEM ELEKTRISCHEN NETZ

Title (fr)

PROCÉDÉ DE CONNEXION D'UNE MACHINE ÉLECTRIQUE ASYNCHRONE D'UN GROUPE MOTOPROPULSEUR À UN RÉSEAU ÉLECTRIQUE

Publication

**EP 4078801 A1 20221026 (DE)**

Application

**EP 20821101 A 20201216**

Priority

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- EP 2020086392 W 20201216

Abstract (en)

[origin: WO2021122724A1] The invention relates to a method for connecting an electric asynchronous machine (4) of a powertrain to an electric grid (12), wherein the powertrain has a driveshaft (2) of a working machine (1), the drive machine (4), a differential drive (5), and a differential transmission (3) with three drives or outputs, one output of which is connected to the driveshaft (2), a first drive of which is connected to the drive machine (4), and a second drive of which is connected to the differential drive (5). In a first phase, the drive machine (4) is started up from a rotational speed of null or approximately null while one drive is simultaneously connected to the other drive or to the output, and the drive machine (4) is separated from the grid (12) in said first phase. In a second phase, the drive machine (4) is connected to the grid (12), the connection between the one drive and the other drive or the output is separated, and the rotational speed of at least one drive and/or output is ascertained. According to the method, the grid frequency is detected, and the drive machine (4) is connected to the grid (12) if the frequency resulting from the rotational speed of the drive machine (4) deviates from the grid frequency by less than  $\pm 5.0\%$ . The connection between the one drive and the other drive or the output is then separated.

IPC 8 full level

**H02P 5/753** (2006.01)

CPC (source: AT EP US)

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