

Title (en)
CONVERTER ASSEMBLY

Title (de)
UMRICHTERANORDNUNG

Title (fr)
ENSEMBLE CONVERTISSEUR

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Application
EP 21712402 A 20210305

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Abstract (en)
[origin: WO2021174280A1] The invention relates to a converter assembly for converting a DC voltage from a DC voltage source, e.g. a battery, a fuel cell or a DC voltage intermediate circuit, into an N-phase AC voltage, e.g. for supplying an N-phase electric machine, comprising a connected inverter unit (1) having a number M of electronically controllable half bridges (2, 2', 2a, 2a', 2b, 2b') for each of the N phases, wherein M is greater than one, a control unit (3) controlling the half bridges (2, 2', 2a, 2a', 2b, 2b'), which is designed to activate the half bridges (2, 2', 2a, 2a', 2b, 2b') in a phase-offset manner with a switching frequency f_T, wherein the phases are connected to a respective winding (5, 5', 5'') of a common-mode choke (10) by a common magnetic core for damping electrical common-mode interference, and wherein the outputs of the half bridges (2, 2', 2a, 2a', 2b, 2b'), supplying said phases, are interconnected via interleaving chokes (4, 4', 4a, 4a', 4b, 4b'), wherein a first resistance-damped capacitor circuit (6) is provided at the output of the interleaving chokes (4, 4', 4a, 4a', 4b, 4b') forming a first LC filter stage (8), and a second resistance-damped capacitor circuit (7) is provided at the output of the common-mode choke (5, 5', 5'') forming a second LC filter stage (9).

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