Title (en)

DEVICE AND METHOD FOR OPERATING A THREE-LEVEL OR MULTI-LEVEL CONVERTER

Title (de)

VORRICHTUNG UND VERFAHREN FÜR DEN BETRIEB EINES DREI- ODER MEHRPUNKTUMRICHTERS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE FONCTIONNEMENT D'UN CONVERTISSEUR TRIPOINT OU MULTIPOINT

Publication

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Application

EP 21769124 A 20210827

Priority

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Abstract (en)

[origin: CA3192871A1] The invention relates to a device (10) for balancing at least one intermediate potential of a DC link (12) for the operation of a three-level or multi-level inverter (34), wherein a half bridge (16) having at least two electronic switches (T1, T2) is connected between two basic-potential bars (ZK+, ZK-) of the DC link (12) and at least one intermediate-potential bar (14). Furthemore, a PWM switching generator (18) is designed to switch the two switches (T1, T2) in a variable duty cycle such that a desired intermediate potential, more particularly a symmetrical intermediate potential, of the intermediate-potential bar (14) can be set. According to the invention, the half bridge (16) is connected to the intermediate-potential bar (14) by means of a smoothing choke (Lt), and the smoothing choke (Lt) forms a coil side of an isolation transformer (20) for the operation of a direct-voltage power supply unit (22). The direct-voltage power supply unit (22) provides an internal voltage supply for the operation of the control electronics of the three-level or multi-level converter, more particularly of a fan for cooling. The invention also relates to a method for operating a device (10) of this type.

IPC 8 full level

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