

Title (en)
DC-TO-DC POWER CONVERTER

Title (de)
GLEICHSPANNUNGSWANDLER

Title (fr)
CONVERTISSEUR DE PUISSANCE CC-CC

Publication
EP 3821526 A1 20210519 (EN)

Application
EP 19735602 A 20190709

Priority
• EP 18183280 A 20180712
• EP 2019068415 W 20190709

Abstract (en)
[origin: WO2020011786A1] An electronic DC-to-DC converter has a first sub-converter (1A, 2A, 3A) having a non-isolated topology, the first sub-converter (1A, 2A, 3A) is connected with the input connections (8) and with the output connections (9) and has a first inductor (3A), wherein the first end of the first inductor is connected with one of the input connections. The converter further comprises a coupling capacitor (4), a bypass switch (5) and a second sub-converter (1B, 2B, 3B) of the same type as the first sub-converter (1A, 2A, 3A) having a second inductor (3B) with a first end and a second end. The second sub-converter (1B, 2B, 3B) is provided in parallel to the first sub-converter (1A, 2A, 3A) between the positive and negative input (8) and the positive and negative output (9), wherein the first sub-converter (1A, 2A, 3A) and the second sub-converter (1B, 2B, 3B) are connected with the coupling capacitor (4) and with the bypass switch (5). The first end of the coupling capacitor (4) and the first end of the bypass switch (5) are connected to the second end of the first inductor (3A) of the first sub-converter (1A, 2A, 3A) and the second end of the coupling capacitor (4) and the second end of the bypass switch (5) are connected to the second end of the second inductor (3B) of the second sub-converter (1B, 2B, 3B).

IPC 8 full level
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CPC (source: EP)
H02M 3/1584 (2013.01); **H02M 1/0058** (2021.05); **Y02B 70/10** (2013.01)

Citation (search report)
See references of WO 2020011786A1

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