

Title (en)
A DC SWITCHING REGULATOR

Title (de)
GLEICHSTROMSCHALTREGLER

Title (fr)
REGULATEUR DE COMMUTATION EN COURANT CONTINU

Publication
EP 1303903 A1 20030423 (EN)

Application
EP 01949748 A 20010718

Priority
• GB 0103231 W 20010718
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Abstract (en)
[origin: WO0207296A1] A DC switching regulator including a transformer (306) having a primary winding (308) and a secondary winding (310) a primary switch (302) connected in series with the primary winding (308) and having an ON condition and an OFF condition in which conditions the primary winding (308) is respectively connected and not connected across a power source (312). A storage capacitor (314) is arranged to absorb magnetization and leakage energy from the primary winding (308) when the primary switch (302) is in said OFF condition. A unidirectional conducting device (313) is connected between the primary winding (308) and the storage capacitor (314) so as to prevent energy from the storage capacitor (314) passing back to the primary winding (308). An auxiliary switch (316) is connected in series with the storage capacitor (314) and has an ON condition and an OFF condition. An inductor (320) is arranged to absorb energy from the storage capacitor (314) while the auxiliary switch (316) is in the ON condition. This regulator has a resetting function for the main transformer (306) which prevents negative saturation of its core while providing zero volt switching of the primary switch (302) and of the auxiliary switch (316).

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H02M 3/335

IPC 8 full level
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CPC (source: EP US)
H02M 1/40 (2013.01 - EP US); **H02M 3/33569** (2013.01 - EP US)

Citation (search report)
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Cited by
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