

Title (en)
SWITCHING CONTROL CIRCUIT HAVING OFF-TIME MODULATION TO IMPROVE EFFICIENCY OF PRIMARY-SIDE CONTROLLED POWER SUPPLY

Title (de)
SCHALTSTEUERSCHALTUNG MIT AUSZEITMODULATION ZUR VERBESSERUNG DER EFFIZIENZ EINER PRIMÄRSEITIG GESTEUERTEN STROMVERSORGUNG

Title (fr)
CIRCUIT DE COMMANDE DE COMMUTATION POSSEDANT UNE MODULATION EN PERIODE D'ARRET PERMETTANT D'AMELIORER L'EFFICACITE D'UNE ALIMENTATION COMMANDEE DU COTE PRIMAIRE

Publication
EP 1935083 A1 20080625 (EN)

Application
EP 05806188 A 20051009

Priority
CN 2005001653 W 20051009

Abstract (en)
[origin: WO2007041895A1] A voltage-waveform detector produces a voltage-feedback signal and a discharge-time signal by multi-sampling a voltage signal of a transformer. The discharge-time signal represents a discharge time of a secondary-side switching current. A voltage-loop error amplifier amplifies the voltage-feedback signal and generates a control signal. An off-time modulator generates a discharge-current signal and a standby signal in response to the control signal and an under-voltage signal indicating a low supply voltage of the controller. An oscillator produces a pulse signal determining the off-time of the switching signal in response to the discharge-current signal. A PWM circuit generates the switching signal in response to the pulse signal and the standby signal. The standby signal further controls the off-time of the switching signal and maintains a minimum switching frequency.

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