

Title (en)

CIRCUIT DEVICE FOR REDUCING OR INCREASING AN ALTERNATING VOLTAGE IN AN APPROXIMATELY SINUSOIDAL MANNER

Title (de)

SCHALTUNGSVORRICHTUNG ZUR ANNÄHERND SINUSFÖRMIGEN ABSENKUNG ODER ANHEBUNG EINER WECHSELSPANNUNG

Title (fr)

SYSTEME DE CIRCUIT POUR REDUIRE OU AUGMENTER DE MANIERE APPROXIMATIVEMENT SINUSOIDALE UNE TENSION ALTERNATIVE

Publication

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Application

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Priority

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- EP 0112992 W 20011109

Abstract (en)

[origin: WO0239789A1] A circuit device for reducing or increasing an alternating voltage in an approximately sinusoidal manner is comprised of an autotransformer, to which the alternating voltage is applied and which has at least one tap, whereby one end of the winding of the autotransformer is connected to the output of the circuit device via a first switch, whereas the tap is connected to the output of the circuit device via a second switch. When opening or closing the first switch, the second switch is alternately closed or opened. The first and the second electronic switch are, for each half-wave of the alternating voltage, provided in the form of transistor switches each having a diode that is connected in parallel. The transistor switches of the first electronic switch, which can be alternately switched through by the half-phases of the alternating voltage, can be controlled by a microprocessor. The microprocessor supplies, according to a phase zero recognition circuit, a firing angle signal for a phase section control and/or phase-fired control of the transistor switch of the first electronic switch. When the first electronic switch is in a non-conducting state, the transistor switch of the second electronic switch is alternately switched by the half-waves of the alternating voltage into the conducting or non-conducting state.

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IPC 8 full level

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CPC (source: EP)

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