

Title (en)
IGNITION SYSTEM FOR INTERNAL COMBUSTION ENGINES

Title (de)
ZÜNDSYSTEM FÜR VERBRENNUNGSMOTOREN

Title (fr)
SYSTEME D'ALLUMAGE POUR MOTEURS A COMBUSTION INTERNE

Publication
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Application
EP 02769094 A 20020411

Priority

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- EP 0204017 W 20020411

Abstract (en)
[origin: WO02090767A1] The invention relates to an ignition system for a 14 V or 42 V vehicle supply, which is directly applied to the ignition transformer by means of the semiconductor power end-stage, without intermediate network components. The semiconductor power stage is activated by an ignition controller, according to an input signal from a higher engine controller. A current thus grows on the primary side of the ignition transformer. The primary side of the ignition transformer is extinguished for a given period after a given maximum current value is first achieved. During this period, a high voltage for spark initiation is generated at the electrodes of the spark plug, by the principle of self-induction. After striking of the spark, the primary side of the ignition transformer is time-controlled and current-limited until the end of the ignition process, which is determined by the higher motor controller. The time control works with selected given time intervals, by means of which the semiconductor power stage is alternately switched on and off. A current limit is superimposed on said time control, which always extinguishes the primary side of the ignition transformer when the primary current reaches the given maximum value.

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