

Title (en)  
SOFT-SWITCHING AUXILIARY CIRCUIT FOR HALF BRIDGE SWITCHING RESONANT INVERTER

Title (de)  
SANFTSCHALTENDER HILFSKREIS FÜR EINEN HALBBRÜCKENSCHALTRESONANZWECHSELRICHTER

Title (fr)  
CIRCUIT AUXILIAIRE À COMMUTATION DOUCE POUR ONDULEUR RÉSONANT À COMMUTATION EN DEMI-PONT

Publication  
**EP 4356509 A1 20240424 (EN)**

Application  
**EP 21946204 A 20210615**

Priority  
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Abstract (en)  
[origin: WO2022265590A1] The invention relates to a soft switching auxiliary circuit for a half bridge switching resonant inverter comprising a DC phase inlet (8) connected via a circuit path (6) and a resonant inverter (10) connected to the DC phase input (8); a soft-switched auxiliary circuit (12) comprising one or more from a capacitor (20, 22) operating above or below the resonant frequency on the resonant inverter (10) an inductor (28), a diode (30, 32) and an isolated gate bipolar transistor (40, 42); a half-bridge switching circuit (16) converting the phase (9) from a direct current input into an alternating current phase output (50) connected half-bridging to the soft-switched auxiliary circuit (12). The soft-switched auxiliary circuit (12) is set to pass zero voltage in the capacitive region and zero current pass in the inductive region.

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