

عنوان مقاله:

Current-fed parallel resonant push-pull inverter with coil flux control for induction heating applications

محل انتشار:

اولین کنفرانس بین المللی الکترونیک قدرت و سیستم های درایو (سال: 1388)

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خلاصه مقاله:

This paper presents a new control method for induction heating applications. In this method the coil current (coil flux) is used in feedback loop. The proposed control scheme is based on current-fed parallel resonant push-pull inverter. The operating frequency is automatically adjusted to maintain approximately zero phase under load parameter variation. Coil current control method is implemented by using two feedback signals (coil current and dc-link current) in cascade scheme. In this topology the resonant tank is designed without matching elements. The validity of this method is verified through computer simulations.

کلمات کلیدی:

induction heating, push-pull resonance, soft switching, cascade control. PLL

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