

SYSTEM AND METHOD FOR ACTIVELY CONTROLLING OUTPUT VOLTAGE OF A WIRELESS POWER TRANSFER SYSTEM

ABSTRACT

A wireless power transfer system (100) is disclosed. The wireless power transfer system (100) includes a first converting unit (104) for converting a first DC voltage of an input power to a first AC voltage, a contactless power transfer unit (108) for transmitting the input power having the first AC voltage, and a second converting unit (110) for transmitting the power having a second DC voltage corresponding to the first AC voltage to an electric load (152). Additionally, the wireless power transfer system (100) includes an active voltage tuning unit (130) for controlling the second DC voltage based on a difference between the second DC voltage and a reference voltage and at least one among a difference between the resonant frequency and the constant operating frequency and a difference between a phase angle of the first AC voltage and a phase angle of an AC current.

[FIG. 1]