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Jeong et al.(10) **Pub. No.: US 2022/0386423 A1**(43) **Pub. Date: Dec. 1, 2022**(54) **INDUCTION HEATING DEVICE**(71) Applicant: **LG Electronics Inc.**, Seoul (KR)(72) Inventors: **Sihoon Jeong**, Seoul (KR); **Ho Yong Jang**, Seoul (KR); **Bada Yoon**, Seoul (KR); **Gwangrok Kim**, Seoul (KR)(21) Appl. No.: **17/752,009**(22) Filed: **May 24, 2022**(30) **Foreign Application Priority Data**

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(57)

ABSTRACT

An induction heating device according to an embodiment may include a working coil; an inverter circuit comprising a plurality of switching elements and configured to supply currents to the working coil; a rectifier circuit configured to rectify the voltage supplied from an external power source; a smoothing circuit configured to smooth the voltage output from the rectifier circuit; a drive circuit configured to supply a switching signal to each of the switching circuits; a controller configured to supply a control signal for outputting the switching signal to the drive circuit; a shunt resistor connected between the smoothing circuit and the inverter circuit; an input current sensing circuit configured to sense an input current value of the inverter circuit based on a current flowing through the shunt resistor; and a resonance current sensing circuit a resonance current value of the working coil based on the current flowing through the shunt resistor

