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(54) **CONVERSION CIRCUIT**

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(57) **ABSTRACT**

The present disclosure provides a conversion circuit including a power supply module, positive and negative input terminals, positive and negative output terminals, a switch, an inductor, input and output capacitors, and a controller. The power supply module converts an AC power for providing three potentials on three power supply terminals respectively. The potential on the first power supply terminal is higher than the potential on the second power supply terminal, which is higher than the potential on the third power supply terminal. The positive and negative input terminals are electrically connected to the first and third power supply terminals respectively, and a voltage therebetween is an input voltage. The negative output terminal is electrically connected to the third power supply terminal. The controller is electrically connected to the positive input terminal, the second power supply terminal and the switch. A voltage across the controller is lower than the input voltage.