

ABSTRACT

A multiphase current supplying circuit according to the present invention includes a diode bridge (2), an intervening circuit (3a), an inverter (4), a control circuit (6),
5 and a lightning arrester (7). The diode bridge (2) is connected to a single-phase AC power supply system (1) via the lightning arrester (7), and performs full-wave rectification on a single-phase AC voltage (V_{in}). The intervening circuit (3a) includes a capacitor (31) and an inductor (32), and is constituted by a choke input type low-pass filter. More specifically, one end of the inductor (32) and one end of the capacitor (31)
10 are connected, output from the diode bridge (2) is received between the other end of the inductor (32) and the one end of the capacitor (31), and a rectified voltage (v_{dc}) generated at both ends of the capacitor (31) is output to the inverter (4).