

ABSTRACT

Sampling of a control system that controls an inverter and updating of a command value are prevented from being degraded, even when the resonance of an LC filter is suppressed using a suppressing current. In a block 10a, a current distribution

5 factor generator 11 receives an amplitude V_m of a single-phase AC voltage V_{in} , an amplitude I_m of an input current, a command value I_{dc}^* of a DC current I_{dc} , a command value V_c^* of a both-end voltage V_c , and a power angular velocity ω , and outputs a current command value I_b^* . A resonance suppression controller 15 receives a reactor voltage V_L , and outputs a correction value $k \cdot V_L$. A subtractor 17 subtracts the

10 correction value $k \cdot V_L$ from the current command value I_b^* , and provides the result to a chopper controller 16. The chopper controller 16 outputs a boost duty d_l based on a corrected current command value $(I_b^* - k \cdot V_L)$. A comparator 14 compares the booster ratio d_l with a carrier C_2 , and outputs the result as a control signal SS_l .