ELECTRIC POWER CONVERTING APPARATUS AND ELEVATOR

ABSTRACT

A first semiconductor module, which is at least part of a converter, and a second semiconductor module, which is at least part of an inverter, are attached to a heat receiving part of a radiator in which a heat transfer means that causes a phase change is used; the thermal capacity per unit area of the heat receiving part extending from the second semiconductor module to the heat transfer means is larger than the thermal capacity per unit area of the heat receiving part extending from the first semiconductor module to the heat transfer means. In this case, the thermal capacity per unit area on the second semiconductor module side is preferably larger than the thermal capacity per unit area on the first semiconductor module side by increasing a thickness of the heat receiving part extending from the semiconductor module to the heat transfer means.

A transient temperature rise of a semiconductor module in an electric power converting apparatus is reduced without greatly increasing the size of the apparatus.

FIG. 1