

APPARATUS FOR OPERATING COOLING SYSTEM IN ABNORMAL STATE

ABSTRACT

Provided is an apparatus for operating a cooling system in an abnormal state, and the cooling system includes plurality of evaporators that suck warm air exhausted from a plurality of electronic equipments installed in an equipment room with fans, cool the warm air through heat exchange with a refrigerant flowing in each cooling coil, and supply cool air into the equipment room; and a condenser disposed at a position higher than the plurality of evaporators, so as to cool the refrigerant circulated naturally between the condenser and each evaporator. The cooling system adjusts a supplied air temperature of air supplied from each evaporator by adjusting an opening degree of each flow regulating valve that adjusts a flow rate of the refrigerant flowing in each cooling coil. The apparatus includes deviation information detecting means for sequentially detecting deviation information between an maximum cooling capacity and a current cooling capacity in operation for each of the plurality of evaporators; and fan controlling means for reducing or stopping a rotational frequency of a fan for an evaporator which has deviation information exceeding a predefined abnormal determining threshold value among the plurality of evaporators.

FIG. 4