

Abstract

The purpose of the present invention is to improve heat exchange efficiency and improve the performance of an evaporator. The evaporator is provided with: a pressure vessel that forms an outer shell; a liquid-film-type heat transfer pipe group that is housed in the pressure vessel and immersed in a liquid-phase refrigerant stored in a storage part provided to a lower part of the pressure vessel and that includes a plurality of first heat transfer pipes in which water to be cooled flows; a liquid-film-type heat transfer pipe group that is housed in the pressure vessel and located upward of the liquid level of the liquid-phase refrigerant stored in the lower part of the pressure vessel and that includes a plurality of second heat transfer pipes which extend in a predetermined direction and in which water to be cooled flows; and a refrigerant supply pipe (13) that is for supplying the refrigerant from above to the liquid-film-type heat transfer pipe groups, that is housed in the pressure vessel, that extends in a predetermined direction, and in which a refrigerant in a state of being in two phases, i.e., gas and liquid phases, flows. The refrigerant supply pipe (13) has: a closure part (20) that closes at least a lower end portion of an end surface in

an X-axis direction; and an opening part (21) that is formed, above the closure part (20), at an end portion in the X-axis direction and that connects the internal space of the refrigerant supply pipe (13) and the external space of the refrigerant supply pipe (13).

[Fig 5]