

THE SEARCH OF THE WATER-AMMONIA ABSORPTION REFRIGERATION MACHINES' ENERGY EFFICIENT MODES

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Abstract

The use prospects of the heat use water-ammonia absorption refrigeration machines (WARM) in systems that obtain water from the air are shown. The energy efficient modes (by the thermal coefficient maximum numerical value) of WARM with regenerative heat-exchanger solutions in the according to the cooling environment temperature, the cooling object temperature, the heating source temperature were determined. The new scheme of the WARM with a biasing booster compressor in front of the condenser for solar collectors work with water as heat transfer agent were designed. Its energy advantage over the vapor compression refrigeration machine working with a heat energy source at temperature above 80 °C were displayed.