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DESIGN CHARACTERISTICS OF NATURAL CONVECTION RADIATOR WITH LOCAL HEAT LOAD

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The problem of optimized calculation of the geometric characteristics of a finned heat-exchange surface with a local heat source under conditions of natural convection is considered. The solution was obtained for the condition of the maximum specific volumetric heat transfer power. An engineering technique is proposed for taking into account the local nature of the application of heat load. The design characteristics are given as functions of temperature head, fin height and thickness of the radiator base.

Keywords: natural convection, finned radiator, local heat load, thermoelectric module.

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